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ABSTRACT

A 9-week summer college preparatory program for the visually impaired provided counseling and training in academics, mobility, and skill and vocational areas. To determine its effectiveness, tests were administered to its 27 participants and to 18 controls. Results indicated that self concept was a significant variable in discriminating between the two groups and in predicting students likely to persist through the freshman year. The semantic differential techniques also rendered data significant both as a discriminator and a predictor. Anxiety was found not to be significant; attrition was greatest among the 18 controls. (Author/JD)

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To the Graduate Council:

I am submitting herewith a dissertation written by Clyde Raymond Smith entitled "An Analysis of the Effectiveness of a College Preparatory Program for the Visually Impaired." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Educational Psychology and Guidance.

Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor for
Graduate Studies and Research

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AN ANALYSIS OF THE EFFECTIVENESS OF A COLLEGE PREPARATORY PROGRAM FOR THE VISUALLY IMPAIRED

A Dissertation
Presented to
the Graduate Council of
The University of Tennessee

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Clyde Raymond Smith
November, 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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ABSTRACT

The purpose of this study was to ascertain whether completion of a college preparatory program for visually impaired high school graduates would enhance such a student's chances for successful completion of the freshman year in college.

Subjects for the study were 45 high school graduates who were being sponsored by Vocational Rehabilitation Services for the Blind and who entered college for the first time in the fall semester of 1968.

The subjects were divided into two groups based on attendance or nonattendance of the college preparatory program of the Arkansas Enterprises for the Blind during the summer of 1968. There were 27 students in the experimental group and 18 students in the control group. Pretest, posttest, and second posttest assessments were made to evaluate both groups, using the Tennessee Self Concept Scale (TSCS), IPAT Anxiety Scale Questionnaire, and a semantic differential.

Results of the study provided support for the following conclusions:

1. The self-concept is a significant variable in discriminating between visually impaired students who attend and do not attend a college preparatory program. The self-concept is also to some extent a predictor of those students who are likely to persist through the freshman year in college. The knowledge which this information provides can be used by both high school and vocational rehabilitation counselors to better prepare their clients for college or other vocational goals more in keeping with the client's view of himself in cases where the

self-concept is such that college does not appear to be a feasible goal.

2. Anxiety, present both in high school seniors contemplating college and in college freshmen entering college for the first time, was not a significant variable in this study either as a discriminator or as a predictor.
3. The semantic differential technique was used with nine concepts assumed to be relevant for this population. The findings from these data were significant as a discriminator between experimentals and controls as well as between persisters and nonpersisters. This suggests that a semantic differential created for any given population should also be a valuable data gathering instrument for use in counseling of college bound students from that population.
4. Attrition was found to be greatest among the control group. Self-concept and attendance at a college preparatory program were seen as variables which were related to the rate of attrition. Significant differences in self-concept were greatest when total persisting and nonpersisting students were compared without regard to whether they had originally belonged to the experimental or control group.

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CHAPTER I

THE NATURE AND PURPOSE OF THE INVESTIGATION

On March 1, 1963, the Arkansas Enterprises for the Blind, a non-profit rehabilitation facility, received a research grant from the Vocational Rehabilitation Administration. The purpose of the grant was to determine the feasibility of a college preparatory program for blind prospective college students. The research and demonstration grant was for a period of three years.

During the three years covered by the grant, the enrollment increased from 17 in the summer of 1963 to 33 in the summer of 1964 and to 34 in the summer of 1965. Since the expiration of the grant, the program has been continued through the use of funds from Lions Clubs of Arkansas and state vocational rehabilitation agencies who have students enrolled in the program. The enrollment has continued to increase, with 44 students enrolled in 1967 and 45 in 1968. In spite of the favorable perception by the vocational rehabilitation counselors of the college preparatory program, no controlled evaluation of the program has been made. It is the purpose of this study to make such an evaluation.

I. STATEMENT OF THE PROBLEM

Does attending and completing a college preparatory program for the visually handicapped enhance the chances for successful completion of the freshman year in college? Will a blind student who has participated in such a class find it easier to make the transition from high school senior to college freshman? More specifically, the purpose of this study is to evaluate the effectiveness of the current college preparatory program of the Arkansas Enterprises for the Blind, with respect to certain changes in self-concept, level of anxiety, attitudes toward certain relevant concepts, and rate of freshman attrition.

II. RATIONALE AND NULL HYPOTHESES

The transition from high school senior to college freshman is seen by the student and those who work with him as being a difficult period. Most high school students regard their initial contact with the college of their choice with some anxiety. They are anxious about selecting the right schedule of courses, developing a satisfactory relationship with their professors, learning to meet and get along with their roommates, developing acceptable attitudes toward themselves and their peers, and selecting and preparing for their vocational goals.

In addition to these anxieties the blind college student faces other difficult situations, due to his lack of vision. The physical aspects of mobility on a college campus are of primary concern. The prospect of meeting and rooming with a sighted person is for many blind students anxiety provoking since it means a re-evaluation of his own self-concept as well as his concept of others. Understanding his peers and professors, as well as making himself understood by them is important to the adjustment of the blind college student. The academic aspects of adjustment to college is fraught with anxiety for the blind student since it means, among other things, finding and retaining a satisfactory reader.

If the blind student is to be able to compete with sighted students he needs assistance in making the transition from high school to college. The training program of the Arkansas Enterprises for the Blind was designed on the assumption that a student who has completed this course would be less anxious concerning his ability to be an integral part of the life of a college. It is expected that a student who successfully completes this training program will also possess more positive self-concepts than a blind student who enters college without the benefit of precollege training. A student who completes the mobility training phase of the program should be less anxious regarding his ability to move about on a college campus. A blind student who is given an understanding of what to expect during his freshman year at college should be less likely to drop out due to inability to cope with his college surroundings.

On the basis of these assumptions, the following null hypotheses were formulated to be subjected to appropriate statistical tests:

1. There is no significant difference, with respect to self-concept as measured by the Tennessee Self Concept Scale, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.
2. There is no significant difference, with respect to attitude toward certain personal concepts as measured by the Semantic Differential, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.
3. There is no significant difference, with respect to level of anxiety as measured by the IPAT Anxiety Scale Questionnaire, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

4. There is no significant difference, with respect to attrition during the freshman year as reported by the colleges they attend, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

III. PROCEDURES

Forty-five blind high school graduates participated in this study. There were 27 in the experimental group and 18 in the control group. The experimental group completed a nine week college preparatory training program which emphasized mobility, techniques of daily living, academic instruction, and personal and social adjustment. The control group did not participate in any form of precollege orientation program.

The design of the study provided for comparison of the experimental and control groups by means of testing prior to the training program, at the beginning of the freshman year of college, and toward the close of the freshman year of college. The instruments used in these assessments were the Tennessee Self Concept Scale, the Semantic Differential, and the IPAT Anxiety Scale Questionnaire. The pretests were administered between the first and fifteenth of June, 1968. The posttests were administered to students between the first and fifteenth of October, 1968, and again between the first and fifteenth of March, 1969.

In comparing the groups in the study, means and standard deviations were computed. The means were compared for significant differences by the *t* test, and the variances were compared for significant differences by the *F* ratio.

IV. LIMITATIONS

In conducting this study the writer recognizes limitations that affect the conclusions which he has drawn from the data. One limitation was the smallness of the sample N and the population involved. There were only 45 students in the study, 27 in the experimental group and 18 in the control group. These students were selected primarily on the basis of their willingness to participate in the study.

A second limitation was geographical, in that the population was drawn from 12 states representing the southeastern and southwestern sections of the United States. The question of how representative this small number of students is of blind college freshmen in the southeast and southwest is an important factor in evaluating the conclusions and recommendations which will be made. Also, the importance of the findings to the other parts of the United States will depend on whether the blind students who live in these states are considered as representative of blind students throughout the United States.

The writer was dependent on written correspondence with the participants in the study for the data obtained from the control group in the pretest, posttest and second posttest, and from the experimental group in the posttests. This lack of personal supervision in gathering the data was a third limiting factor in the interpretation of the test results.

V. JUSTIFICATION

The reasons for undertaking this study were as follows: (1) to survey existing orientation programs for the blind, (2) to evaluate the Arkansas Enterprises for the Blind college preparatory program, and (3) to explore the desirability to promote the establishment of more college orientation programs, not only for the blind, but for all physically handicapped college students. It is anticipated, if the results of this study are as favorable as has been indicated by vocational rehabilitation counselors who have had students enrolled in the college training program, that other states will follow Arkansas's lead in establishing college training programs for their physically handicapped.

VI. CONTENTS

Chapter II contains a review of related literature with regard to general college orientation programs as well as orientation programs specifically designed to assist the visually handicapped student in college. Chapter III includes population and procedures with a description of the subjects, the training program, the design of the study, and the assessment instruments used. Chapter IV deals with the presentation and analysis of the findings in the pretest and two posttests. Chapter V summarizes the findings of the study, states the conclusions, lists limitations in interpretation, and suggests areas for further research.

CHAPTER II

REVIEW OF RELATED LITERATURE

Latimer (1926) emphasized the ideal of higher education and accurately summed up the philosophy of rehabilitation counselors who work with visually impaired students when he wrote:

> If talent rather than limitation, aptitude rather than handicap, capacity rather than pride of family are the bases of right selection, there can be no doubt that blind persons should be encouraged to go to college.

During the 1940's and 1950's the number of blind students entering the universities was insignificant. The first survey of blind and partially sighted students enrolled in institutions of higher education was conducted in March, 1957 by the Office of Education. Of the 2,228 colleges and universities contacted, 2,032 (91.2%) responded. Of this number, only 415 institutions reported blind students on their campuses, with a total enrollment of 915 (Trosch, 1958).

With the increasing emphasis on higher education it was inevitable that more and more partially sighted and totally blind high school graduates would seek admission to institutions of higher education. Their admission to colleges and universities brought a different set of problems than those to which the staff and faculty were accustomed. Very little attention was given to freshman orientation programs, which at that time were not capable of dealing with these problems. This absence of interest is attested to by the lack of relevant literature in this area. The literature search, as well as correspondence with the American Foundation for the Blind, Recording for the Blind, Inc., and the national

Office of Vocational Rehabilitation revealed little of value prior to the early 1960's; in fact, the majority of the relevant material reviewed in this chapter has been written during the past five years. As Trosch (1958) noted:

> The integration of blind and sighted students in school and classroom is increasing. While their educational needs are not being fully met, the possibility of doing so is within reach. Each year, as institutions of higher education open their doors to these students, more aid and tools for learning can be extended to them (p. 124).

By the early 1960's the percentage of physically handicapped college students was increasing almost as rapidly as that of their nonhandicapped counterparts. This was due to the emphasis on the necessity of gaining a higher education if the handicapped student expected to be able to compete on an equal level with others in modern technologically oriented society. With this increase in enrollment, freshman orientation programs and college preparatory programs were instituted for the physically handicapped in general, and to a lesser extent for the visually impaired.

I. GENERAL COLLEGE ORIENTATION PROGRAMS

In order to better understand the problems which face those who work with blind students, a look at college orientation programs in general is helpful. In a study comparing the aspirations and expectations of physically handicapped and nonhandicapped high school seniors, Allen (1967) found no significant differences when other factors such as grade point average, father's occupation, and socio-economic level were kept constant. An understanding of the precollege student is important since in many respects a handicapped student does not differ from the nonhandicapped student.

When should freshman orientation take place? Who should be involved? What factors are important in conducting freshman orientation? These and many more pertinent questions are being asked as each year sees more freshmen enrolling in colleges and universities. Miller & Ivy (1967) conducted a study using three approaches to freshman pre-orientation: (1) small group approach, (2) assemblies, and (3) large group. Small group precollege orientation sessions elicited most favorable responses indicating that students wish to be personally involved, and can do so better in a small group situation.

Pappas (1967) conducted a study using 170 students at Kent State University all of whom had participated in a precollege orientation program. The students were divided into three groups--two experimental and one control. Both experimental groups were involved in follow-up orientation programs where factual information was presented in lecture form, and student centered discussion sessions were conducted during the first quarter. The control group participated only in the precollege orientation program and did not have the benefit of follow-up counseling sessions. All three groups contained equal numbers of high ability students who had been admitted to Kent State in good standing, and students of lower ability who had been admitted to Kent State with warning. In all instances the experimental groups achieved a significantly higher grade point average than did the control group.

The success of orientation classes for new college students suggested the possibility of arranging similar experiences for high school seniors who were contemplating enrollment in college in the fall after graduation. Kronovet (1967) described the experiment conducted by Hofstra University. Students were invited to participate in a series of four two-hour discussion sessions. Topics discussed were: conformity in today's society, interpersonal relations, the value of a liberal arts education, expectations in marriage and family relations, and self-identity. Several of the students found the sessions so rewarding that they decided to meet an additional six weeks.

In a similar study by Clements (1966) concerning effects of anxiety reduction in college freshmen, it was suggested that a precollege orientation program carried out while the student was still a senior in high school (April and May of his senior year) seemed to lessen anxiety as measured by the pretest/posttest method (Self-Concept Inventory and Index of Adjustment and Values), and that transition from high school to college was facilitated.

In a study measuring the effect of precollege orientation conferences on behavior of freshmen, Jesseph (1966) concluded that students who had engaged in the precollege orientation conference, when compared with an equal number of freshmen who had not attended the conferences, carried heavier course loads, were more likely to use the study skills course and the counseling center, and included fewer students who changed fields of study or withdrew from the university.

With the increasing number of married students attending college some attention has been given to the relative position of student wives in regard to orientation in general and academic orientation in particular. Hilderbrand (1967) in reporting a study of student wives at Texas Technological College concludes that while these young women (20 to 24 years of age) were primarily interested in home and family, some of them were currently enrolled in night courses, and more would be if the courses of study offered at night were more in keeping with their present interests.

II. ORIENTATION PROGRAMS FOR THE VISUALLY IMPAIRED

During the past nine years there have been four major attempts at establishing precollege orientation programs for the visually impaired. McGill & Frish (1960) in describing the college preparation program at the Chicago Lighthouse for the Blind listed three major areas of concern in this program--understanding of college procedures, practice in effective study methods, and personal/social development. In more specific terms, the following activities were arranged in order to satisfy the goals of the program: (1) students lived at the YMCA and other clubs where they learned to function independently with assistance from staff members; (2) field trips were taken to campuses in Chicago which gave the students training in traveling; (3) assistance was offered in learning to work with readers, use of tape recorders, and improvement in typing and Braille; (4) personal counseling was offered and was especially helpful with those students from sheltered environments; and (5) blind professionals discussed career choice with the participants and blind students already attending college discussed their experiences.

In the summer of 1964 the New York Vocational Rehabilitation Service of the Commission for the Blind provided a six-week orientation program for students who had already been accepted at a college or university (Brown, 1965). The program was conducted on the campus of Syracuse University, the general objectives being: (1) to introduce each student to dormitory living in a large, complex college community and to the many problems of living on a typical college campus in an unfamiliar community; (2) to allow the student to explore and participate in the procedures and routines of college life, including registration, counseling services, study techniques, and extracurricular activities; and (3) to test and evaluate each student to determine remedial services which might be required to achieve maximum success and acceptance in college. A follow-up institute was held during the following Christmas vacation, and it was believed that adjustment to university life was greatly facilitated by the summer orientation at Syracuse. The program was not only valuable for the students, but also for college administrators who turned to the rehabilitation center with problems related to the visually handicapped.

In the summer of 1963 the Arkansas Enterprises for the Blind in Little Rock, Arkansas established a college preparatory program for prospective college students (Arkansas Enterprises for the Blind, 1967). Although some attention was given to academic preparation, the more practical needs of the student on a college campus were emphasized. Mobility training included learning to travel (with the aid of a white cane) around the facility, progressing to travel in and around the immediate neighborhood and ending with the student's being able to go to at least seven different addresses in Little Rock alone and bringing back proof that he had been there. Personal adjustment included learning to live as a blind person in a sighted world. Since many of the staff members were totally blind or partially sighted they were able to understand, from their own experience, some of the problems facing the new trainee. Communicative skills included the reading of Braille, typing on both standard and Braille typewriters, and penmanship. Daily living techniques such as personal grooming, ironing, making beds, doing laundry, and cooking were practiced. Social skills including bowling, dancing (ballroom and other styles), card playing, shuffleboard, and just carrying on a conversation were stressed. There were also times set aside for discussion groups led by staff members and lectures by outside personnel who possessed knowledge and experience valuable to the potential college student.

The value of precollege orientation as seen from the college student's perspective was described by Grant (1967), a college sophomore at Fresno State College who had participated in a workshop sponsored by the California State Department of Rehabilitation. During this workshop, all aspects of college life were discussed, academic and social, and the participants were made aware of problems to anticipate at a university. The workshop was a two-day affair conducted by both students and rehabilitation counselors. Topics for discussion were those common to college students, such as development of more effective study habits and how to research and write a term paper. There was general agreement that the workshop was beneficial.

III. SUMMARY

With an ever increasing number of students enrolling in institutions of higher education there is a need for better understanding, on the part of both college administrators and soon-to-be college students, of the role each will play in the education of the students--especially the physically handicapped student. Precollege orientation programs, while few in number, are doing an adequate job of filling the gap between high school graduate and college freshman. Although the literature is limited, the articles and reports cited in this chapter lend support to the need for continued growth on the part of college orientation programs for handicapped and nonhandicapped alike.

Since 1960 there have been four attempts at establishing precollege orientation programs for the visually impaired:

1. Chicago Lighthouse for the Blind, whose program stressed understanding of college procedures, practice in effective study methods, and personal/social development;
2. New York Vocational Rehabilitation Commission for the Blind, whose general objectives were to introduce each student to dormitory living in a large university (Syracuse), participation in the ongoing life of a college community, and personality and academic testing (to determine the placement and needs of visually impaired students);
3. Arkansas Enterprises for the Blind, emphasizing personal needs, mobility training, counseling on adjustment to blindness, communicative skills, social skills, and academic instruction;
4. Fresno State College exploring important aspects of college life, including: academic preparation, social adjustment, and how to effectively enter into the total life of the college community.

All of these programs have as their basic theme the integration of the visually impaired student into the college he attends. The main differences were: location of the orientation program (two were on college campuses and two were in private center settings), length of time to accomplish their goals (two days to nine weeks), and emphasis placed on specific needs of the visually impaired student.

CHAPTER III

POPULATION AND PROCEDURES

This chapter is a description of the student population and the procedures which were used in carrying out the investigation.

I. THE SUBJECTS

The subjects in this study were 45 visually impaired high school graduates who were sponsored by Vocational Rehabilitation during the 1968-69 school year. These students attended 33 institutions of higher education in 12 states. These institutions included six junior colleges, nine state colleges, nine state universities, three technical schools, and six private colleges (Appendix A).

The population was divided into two groups based on attendance or nonattendance of the college preparatory program at the Arkansas Enterprises for the Blind during the summer of 1968. The experimental group consisted of 27 students, 16 females and 11 males, ranging in age from 16 to 28, who completed the college preparatory program and entered college the fall semester of 1968. The control group consisted of 18 students, 10 females and 8 males, ranging in age from 17 to 23, who did not attend a college preparatory program during the summer of 1968, but entered college the fall semester of 1968. Of the 27 students in the experimental group, 15 attended public high schools and 12 attended state schools for the blind. Of the 18 students in the control group, four attended public schools and 14 attended state schools for the blind.

Mental capabilities of both groups as measured by the verbal section of the Wechsler Adult Intelligence Scale (WAIS), as well as by other standardized test data reported on high school transcripts, indicated somewhat above average verbal ability when compared with the same age group in the nation as a whole. Their mean IQ of 115, with a range from 104 to 143, is about the same as that of college-bound students generally. Performance skills as measured by the Pennsylvania Bi-Manual were, on the average, one standard deviation below the verbal ability scores on the WAIS. The members of the control group were recommended to Vocational Rehabilitation by their high school guidance counselors as feasible college prospects. The members of the experimental group were recommended by their high school counselors and also by each staff member of the Arkansas Enterprises for the Blind in a narrative report to their Vocational Rehabilitation counselors upon completion of the college preparatory program in August, 1968.

Socioeconomically, the students in both groups would be classified as middle and lower-middle class. The occupational range of the students' parents range from semi-skilled to upper management in industry. With this diversity of family background the apparent homogeneity in tested IQ, educational aspirations, and sponsorship by vocational rehabilitation services for the blind might be due in part to the fact that the students who had attended state schools for the blind had spent a greater portion of their lives in this environment than in the home. General medical reports on each student revealed no other physical disabilities which would be of a handicapping nature in college.

This summary of the characteristics of the students who participated in this study has been given so that the findings of the research may be more accurately evaluated. In most respects these two groups appear to be homogeneous, so that the findings may be regarded as representative of visually impaired students who are entering college for the first time, and who have attended a college preparatory program (experimental group), and a comparable group of students who have not attended a college preparatory program (control group).

II. THE TRAINING PROGRAM

The sixth college preparatory program at the Rehabilitation Center of the Arkansas Enterprises for the Blind in Little Rock, Arkansas was held from June 10, 1968 to August 9, 1968. On the opening date 45 high school graduates from 12 states were in attendance.

The Center is devoted primarily to personal adjustment and prevocational training of the adult blind. The summer college preparatory program involved in this research is carried on in addition to year-round work with adults. The facility occupies a square block in a middle income residential section of Little Rock. The Center is internationally known, not only because of its reputation for vocational rehabilitation of the blind, but also because the sponsoring agency is the Lions Clubs of Arkansas, affiliated with Lions International.

The nine-week course was designed to assist the blind student in solving the problems he will encounter as a college student. The first week was devoted to orientation and evaluation. Each student was given a temporary schedule which permitted him to engage in all of the activities the Center offers. During this time each student was introduced briefly to crafts, shop, physical fitness, typing, Braille, communicative skills (penmanship, operation of talking book machines, and tape recorders), tasks of daily living, home management, social skills, mobility, and group counseling.

Each day's activities began with breakfast served in the Center dining hall at 7 a.m. At 8 a.m. the first of nine 45-minute class periods convened with the number of students in each class ranging from two to eight. There were two 15-minute coffee breaks and 75 minutes for lunch.

A typical week's schedule was: Monday through Friday, 8 a.m. to 4:30 p.m., regularly scheduled classes; Monday evening, dancing lessons; Tuesday evening, bowling or combo practice; Wednesday evening, gavel club; Thursday evening, organized recreation such as card playing, talent shows, and bingo; Friday evening, dance party with a local band or the Center combo; Saturday morning, swimming. On Sunday morning students were escorted to the church of their choice by citizens of the community.

It was felt that this type of scheduling might give the prospective college freshman a more realistic idea of what to expect in college. Another reason for this rigorous schedule was to prevent homesickness during those first few days. Participation and involvement were the main themes of the Center. Students were required to participate in at least one social event each week, and were encouraged to enter into as many activities as they would.

Each department had evaluation sheets (Appendix B) which were completed on each student and turned in to the director of training. The evaluation forms were available to the scheduling committee (department heads and the counseling staff), which met every Friday to review the work of each student for the past week. The original schedules were based on the recommendations of the staff as reported on the evaluation sheets. When a student had satisfactorily completed any given task he was scheduled out of that area and into another. By placing the scheduling of classes on an individual need basis and also by constant review, each student was able to benefit from all aspects of the total college preparatory program. The one area in which every student spent all nine weeks was that of academic instruction. It was felt by the Center staff that participation in the academic instruction activity was essential if the student expected to be able to compete with sighted college students.

A summary report (of which Appendix C is an example) including the progress of the student and the instructor's recommendations as to how this student may be expected to perform in college was sent to each student's rehabilitation counselor upon completion of the program. In some instances, if the student was not recommended for college, he remained at the Center for an additional period of training.

In order that the reader might better understand the nature and extent of the student's preparation for college there follows a detailed description of the specific training areas in which the students participated.

Academic instruction

The academic instruction area was created for the college preparatory program and has been taught ever since its inception by an experienced college teacher, who has developed a syllabus outlining instruction in the basic academic skills which college freshmen need, particularly in English and related areas of theme writing and public speaking (Appendix D). During the training program each student was responsible for five oral reports to be given to his class. The topic of each talk was chosen from a list prepared by the teacher. Each student was also responsible for seven written themes, which included a short personal experience, an autobiography, character sketch, a longer personal experience, requirements for a degree from the college the student planned to attend, novel critique, and an evaluation of the college preparatory program.

In order to increase the awareness of the student as to his progress, periodic evaluations were made. During the first week each student was given a spelling test. One month later a similar spelling test was given. Spelling is somewhat more difficult for blind persons, possibly due to their learning the shorthand forms of Braille in the first and second grades. The students were also tested on punctuation, mechanics of English, diction, agreement of subject and verb, and grammar.

Orientation and mobility

With the ever increasing size and complexity of the college campus, the need to be mobile assumes increasing importance. In consideration of the practical aspects of being able to travel by oneself, as well as the self-confidence which independent travel gives to a blind person, the college preparatory program emphasizes the importance of adequate mobility by the use of the white cane.

The student was instructed in various techniques for holding his white cane, or Arkansas traveler, as it is affectionately called. He was also instructed in techniques for going up and down stairs and using the rhythm method of travel, which aids the traveler in walking in a straight line and finding his bearings. Burke's Travel Training Manual (1959), written by the mobility and orientation instructor at the Center, contains a detailed description of the rhythm technique which is basic to acceptable cane travel.

The first week was used by the orientation and mobility staff to evaluate each student. This evaluation and training was on an individual basis--one instructor for each student. During five 45-minute evaluative sessions, with the use of a checklist containing questions the student should be able to answer and the tasks he should be able to perform, the mobility instructor determined what training the student needed to be capable of independent travel (Appendix B). Orientation and mobility training is a systematic program of progressively difficult assignments which begins by learning to travel within the training building, and concludes by traveling alone to different areas in the city.

During the first week of training each student learned through diagrams in Braille and through tactile contact, the location of the various classrooms and offices in the training building. This route was traveled as many times as necessary (usually three 45-minute class periods) for the student to become confident that he could verbally direct his mobility instructor or a visitor to a particular classroom. Before proceeding with any type of outside mobility instruction, each student was oriented by use of a model of the Center grounds which consists of four major buildings situated on a square block. They are arranged in such a way that they form a quadrangle with a court in the center. He learned that the training building forms the eastern perimeter of the quadrangle, the administration building forms the western boundary, the dining hall and women's residence hall forms the southern boundary, and the men's residence hall forms the northern boundary.

The next phase of the program involved an introduction to the inner court which has an enclosed rose garden approximately ten feet square. By this time he had already gained some understanding of the inner court, as it was necessary for him to move within its confines during his first week at the Center. Two 45-minute periods were usually allotted for the learning of the inside court, with the student encouraged to practice on both the inside of the training building and the inner court on his own time.

When the instructor felt that the student had gained enough cane technique within the inside court, he was shown how to follow sidewalks outside the buildings. He began by walking, with the aid of the instructor, on the front walk of the administration building. He was shown how to arc his cane in order to maintain the center of the sidewalk. He was also shown how to follow a curb where there is no sidewalk. There are numerous driveways leading into parking lots and storage areas, and the student was taught how to follow these driveways in order to continue his circuit of the outside square. After the student had mastered the outside square going in one direction, he was encouraged to go in the opposite direction. The amount of time needed for this orientation depended on the physical fitness of the student, as well as his motivation to learn.

The next phase of the training program was neighborhood travel. The location of the Center is ideal for mobility purposes since it is a residential area, and daytime traffic is light. The student memorized the streets of the neighborhood in which the Center is located. He learned that the numbered streets run east and west, while the named streets run north and south. Then he and his instructor planned and executed a route around the Center, which was repeated several times. When it was felt that the student had gained enough experience and confidence, he was permitted to travel the route on his own. The first few times, the instructor followed at a discreet distance to observe the extent to which the travel techniques had been mastered. Upon satisfactory completion of neighborhood travel, the student was given a neighborhood travel pass, which enabled him to go alone, or with other students, to various shops in the immediate area, including a shopping center about one mile from the Center.

As the student progressed, mobility training took him away from the Center to the downtown area. Prior to the first trip the student was given an audiometer test which checked his hearing from 125 to 8,000 cycles. It has been observed that good hearing in any of the higher frequencies from the 1,000 cycles up is an indication that the person has a potential for developing obstacle perception--the ability of feeling objects before they are actually contacted (Burke, 1959). The first trip was devoted to teaching the student how to board a bus and to familiarize him with the bus route to the downtown area. If he had previous experience, very little instruction was needed; however, if he had little past experience in riding a bus, much time and effort were spent in teaching him the acceptable method of boarding a bus, paying his fare, and finding a seat. The student was told that the bus would make seven turns, which he was encouraged to count, and that the seventh turn would bring him to 14th and Main. Downtown training differs from neighborhood training in several aspects. There is more traffic, noise, people, and general confusion. For the first time, the student encounters traffic lights and the necessity for gaining assistance in crossing streets. Prior to this time the student had been instructed to listen for the sound of moving traffic when crossing streets. The techniques for moving in a crowded area were explained, and the technique for crossing busy streets with assistance was explained and demonstrated. Practice with the instructor was a part of the first several trips. When it was felt that the student was sufficiently prepared, he was given a route to follow consisting of several addresses. The student was instructed to enter the business establishment, inquire as to the nature of the business, inform the salesperson of his reason for being there, and then to go on to the next address. The mobility instructor observed the student for several trips and then the student was permitted to take a list of business addresses and go alone to those addresses bringing back the business cards of persons with whom he talked as proof of his ability to "solo". Upon completion of this task he was awarded a "solo" pin.

Techniques of daily living

Techniques of daily living involves things a sighted college student takes for granted, such as sewing, ironing, identification of clothes, shining shoes, etc. During the first week each student was evaluated in these, and many other areas. The ability to care for their own personal needs ranges from doing the most basic (one student had not learned to tie his own shoes), to doing as well as any sighted high school graduate.

Using his evaluation sheet as a guide, each student spent as much time as was necessary in each area. Instruction in the area of personal appearance is important because this is usually the basis for a sighted person's first impression. The instructional staff was quite candid in their appraisal of each student, and nothing was left to chance as far as assisting the student in making a pleasing physical appearance. Correct posture, well modulated voice, and overall positive personality improvement were stressed as integral parts of daily living.

Another important aspect of appearance was the selection, coordination, and care of clothing. They were taught to separate different colored articles of clothing. Men were taught to keep socks and ties of different colors separated or marked with some kind of tag which was meaningful to them. Lectures were given concerning acceptable color combinations and the appropriate clothing for different occasions. There were small group discussions concerning the proper length of skirts for women, and length of hair for both men and women. There are techniques which have been improvised to aid totally blind students with threading of needles, selecting proper water temperature and agitator speed in washers, and the safe use of electric irons. Having a place for everything and keeping things in their proper place saves students many embarrassing, if not unfortunate, accidents.

Students were observed while eating in the dining hall with reference to their table etiquette. Those who needed assistance in this area were scheduled in table etiquette, until their eating habits were acceptable. Table conversation was also observed, and was a topic for small group discussion. By the time the nine-week period was completed most of these students received an "A" from the instructor.

Communicative skills

Communication is the art of exchanging ideas--spoken, written, or a combination of both. The college preparatory program attempts to instruct the student in methods whereby his other four senses can be used to compensate for his loss of vision.

Students learned Braille, the use of the typewriter, longhand writing, and the use of talking book machines. During the first week their proficiency in these areas was evaluated. Schedules were based on need, and students were provided with opportunities to practice in areas which they had already mastered.

Braille is taught in four levels, known as grades one, one and one-half, two, and three. Grade one is the most elementary form of Braille and most of the students were already familiar with it. Grades one and one-half and two are shorthand forms, but only to a limited extent. The area in which all students needed some work was grade three. This very abreviated system of note taking permits a student with a good grasp of the subject to take satisfactory notes, almost as rapidly as a sighted person. Students were expected to attain a writing speed of 25 to 30 words per minute using a Braille writer or slate and stylus. A Braille reading test was administered at the beginning of the session where reading rates ranged from under ten words per minute to over 150 words per minute.

Students were already aware of the importance of being able to type and this awareness was given impetus by both the typing and academic instruction teachers. The writing of acceptable themes was the primary concern, with letter writing and check writing of lesser importance. In evaluating each student, attention was given to the basic skills of margin setting, centering, placing of paper in the machines, etc. If a student had no prior experience in typing he learned to type an acceptable paper in four to six weeks.

Instruction in longhand writing began with the student learning to write his signature. There are signature guides which a blind person can place over a letter, check, or other document enabling him to write within a given space. There are also line guides which cover an entire sheet of paper enabling the student to stay within the lines while writing. How proficient the student becomes in this area is dependent on his degree of motivation and interest. Some students barely mastered their signatures.

Students who lost their sight after having learned to write in public school had an advantage over those students who had been blind from birth or preschool age.

Learning to operate a talking book machine and a tape recorder is important since most of the materials which the college student uses are available to him either on tape or record. Recording for the Blind, a nonprofit organization, as well as the Library of Congress and the American Printing House for the Blind, both governmental organizations, provide recordings of thousands of text books. Volunteer readers from the Junior Service League and the Jewish Sisterhood provide both Braille and tape recorded books to college students.

Social skills

Maintaining satisfactory social relationships is sometimes difficult for the sighted college student, and more so for the blind college student. The college preparatory program encourages students to participate in social activities such as card games, dancing, talent shows, bowling leagues, swimming, and developing good conversational skills.

Each student was scheduled in a social skills class at least one period a day during the week of evaluation to determine the particular games and sports of which the student had knowledge and in which he was interested. Social skills was viewed by most of the students as a time for relaxing and enjoying good fellowship. The students realized that being socially acceptable to other college students could mean the difference between simply gaining an academic degree, and having a well-rounded educational experience. As one of the students stated: "If you can play bridge well and a sighted person asks for a fourth at bridge, you are just another bridge player, and not 'that blind boy'."

The climax of the social season was a political campaign to select the most popular boy and girl of the college preparatory program. These two students made the speeches at the "Appreciation Banquet". This was a very important event in the lives of these students, because it gave them an opportunity to know how well they had been accepted by each other and how they might expect to be accepted by their college peers.

Physical conditioning

Because it is important to good physical and mental health each student was scheduled in a physical fitness class for at least one 45-minute period a day during the first week. His physical status was evaluated by the instructor and appropriate exercises recommended.

The students had access to the different exercising machines and the bowling, archery, shuffleboard, and table tennis facilities at the Center. Swimming was taught, using the facilities at the Arkansas School for the Blind and Aldersgate, a Methodist camp near Little Rock.

Home management

The Center has a well equipped kitchen and provides instruction in food economics, both purchasing and nutrition. Each student was permitted to prepare and serve a meal to three of his fellow students. There seemed to be as many men as women interested in home management. Students were instructed in the safe use of appliances in the kitchen, including both electric and gas ranges. When a student prepared a meal, he was responsible for planning the menu, marketing, preparing the food, and cleaning the kitchen after his guests had left.

Shop and crafts

The activities in shop and crafts are used to evaluate the student in terms of hand-finger dexterity, as well as his ability to do physical work. The students were enrolled in one 45-minute period in shop and one 45-minute period of crafts for the purpose of evaluation and recommendations.

Most of the students seemed to enjoy working with their hands and completed several projects during the training period. Most of the projects in shop were small--making a jewelry box or constructing a door mat. In crafts the projects ranged from making pot holders to weaving small rugs. Some of the students made leather goods, key holders, billfolds, and purses.

Counseling

The students were assigned a counselor who conducted an initial interview with each one of his students during the first two weeks. Group counseling was conducted every Monday for a 45-minute period, and group discussion sessions were conducted on Tuesday and Friday for a 45-minute period. During this time topics of discussion were: dating, marriage between sighted and blind persons, personal appearance, social organizations in college, and the importance of first impressions.

In addition to individual counseling interviews each counselor administered a battery of tests to his students. The battery included the verbal section of the Wechsler Adult Intelligence Scale, the Pennsylvania Bi-Manual, and the Rotter Incomplete Sentences Blank. In addition to these tests, each counselor was free to administer any other tests he felt would provide valuable information. Each student had an interview with the psychiatric consultant and his report was made a part of the student's total record.

Other activities

In order to protect the physical health of the students, a nurse was on duty at all times and a physician made regular visits to the Center. Arrangements were made for dental and other specialized medical services when necessary.

Guest speakers were invited to talk to the students each Wednesday and Thursday at the group discussion period. These speakers included college professors, a director of Vocational Rehabilitation, an instructor at the Arkansas School for the Blind, and others. The students were encouraged to take notes on these presentations, and twice during the course an unannounced quiz was given to determine the effectiveness of their attention and note taking.

The students also visited the campus of a college in Arkansas where they were given a tour of the campus and had the experience of going through a college cafeteria and selecting their lunch. The dean of the college discussed the college program and answered questions concerning his views of a blind student on a college campus, providing the students with a better understanding of what to expect in their own colleges.

III. DESIGN OF THE STUDY

In March, 1968, letters were sent to vocational rehabilitation counselors for the blind in the southeast and southwest. The letters outlined the proposed research and requested names of visually impaired students who would be entering college for the first time in September, 1968. The 18 students in the control group were chosen from the list submitted by the counselors of students who were not to be enrolled in a college preparatory program. The 27 students in the experimental group were chosen from the students who completed the college preparatory program of the Arkansas Enterprises for the Blind in the summer of 1968.

During the nine-week period, June 10 to August 9, 1968, while the initial data were being collected on the experimental group, the investigator was a counselor on the staff of the Arkansas Enterprises for the Blind. This position was arranged so that the investigator would have an acceptable reason for being involved with the students of the college preparatory program. During the first eight weeks, only the department heads and the director of Arkansas Enterprises for the Blind were aware of the exact nature of the work being done by the investigator. This was necessary so that the staff and students would be less likely to react differently than they would to any other staff counselor. During the last week, the investigator conducted an interview with each student participating in the study, explaining the nature of the investigation and requesting the further cooperation of the student in completing the second phase of the study.

In August, 1968, a letter containing the text of the interview with the experimental group was mailed to each student who had agreed to participate in the control group. A form was also enclosed requesting the name and address of the college the student planned to attend, so that the counseling center or student personnel office of the colleges could be contacted. The counselor or student personnel worker was requested to administer the first and second posttests.

The design of the study provided for comparison of the experimental and control groups by means of testing prior to the training program (pretest), at the beginning of the freshman year of college (posttest), and toward the close of the freshman year of college (second posttest). The instruments used in these assessments were the Tennessee Self Concept Scale, the Semantic Differential, and the IPAT Anxiety Scale Questionnaire. The pretests were administered between the first and fifteenth of June, 1968. The posttests were administered to students between the first and fifteenth of October, 1968, and again between the first and fifteenth of March, 1969.

IV. ASSESSMENT INSTRUMENTS

Tennessee Self Concept Scale

One of the purposes of this study was to measure the self as perceived by the blind student, and the amount of change, if any, which would take place after participating in an orientation program specifically designed for him. The Clinical and Research Form of the Tennessee Self Concept Scale (Fitts, 1965) was selected because it measures areas of self-concept in which change might be expected.

The TSCS consists of 100 self-descriptive statements which yield measurements in the following areas: self-criticism, level of self-esteem, identity, self-satisfaction, behavior, physical self, moral and ethical self, personal self, family self, variability, true-false ratio, net conflict scores, total conflict scores, and deviant scores. In studies cited by the author, test/retest reliability coefficients range from .88 to .92. These studies demonstrated that the distinctive features of individual profiles are still present for most persons a year or more later. The research further indicated that the Tennessee Self Concept Scale is a valid instrument for measuring the self-concept and changes which might result from therapy or other treatment of an experimental nature.

The semantic differential

In view of the nature of this study, namely, identifying areas which have special meaning for the blind, it was decided to construct a semantic differential scale using concepts which have special significance for the control group as well as for the experimental population. While the concepts were those of the writer, the bi-polar adjectives used to describe them were taken from Osgood, Suci, and Tannenbaum (1957). The quantitative measurement of connotative meaning, as developed by Osgood, has found wide acceptance since its inception in 1957. Osgood's theoretical position might be said to be an elaboration of Hullian learning theory; it may be considered a behavioral conception of the representational mediation process. Osgood's summarization of the rationale for the semantic differential follows:

> (a) the process of description of judgment can be conceived as the allocation of a concept to an experimental continuum definable by a pair of bi-polar terms, (b) many different experimental continua, or ways in which meaning vary, are essentially equivalent and hence may be represented as a single dimension, (c) a limited number of such continua can be used to define a semantic space within which the meaning of any concept can be specified (1952, p. 227).

The writer used nine concepts which, on the basis of his experience as a partially-sighted person, he assumed to have specific meaning for visually impaired students: myself, college, my roommate, blind students, my classes, people who help me, my college room, students who see, and professors. The meaning of each concept was measured by means of nine sets of bi-polar adjectives, covering the three basic dimensions of meaning which Osgood has identified: (1) the evaluative dimension--good/bad, pleasant/unpleasant, meaningful/meaningless, optimistic/pessimistic, important/unimportant; (2) the potency dimension--strong/weak, tenacious/yielding; and (3) the activity dimension--active/passive, complex/simple.

IPAT Anxiety Scale Questionnaire

It is generally accepted that high school graduates are anxious concerning attending college. It was believed important in this study to gain an assessment of the nature and degree of the anxiety felt by blind students who expected to be entering college for the first time. It was also desirable to determine the degree to which this anxiety was lessened when students attended a college orientation program. The IPAT Anxiety Scale Questionnaire (Catell & Scheier, 1963) consists of 40 items, which are answered by placing an "X" in one of three squares captioned "true, uncertain, and false." The scale is designed to measure anxiety in adults and young adults reaching downward to the mid-teens. Measurements of anxiety are obtained in five areas labeled: defective integration, lack of self sentiment; ego weakness, lack of ego strength; suspiciousness or paranoid insecurity; guilt proneness; frustrative tension or id pressure.

Research by the authors of the scale has indicated two types of validity--construct or concept validity, .85 to .90, and external concrete validity, .30 to .40. Reliability for total scale scores is dependability, .87 to .93, and homogeneity (split-half) .84 to .91. These measures of reliability were adequate for the purposes of this study.

V. STATISTICAL TREATMENT

In comparing the groups in this study, means and standard deviations were computed. The means were compared for significant differences by the t test, and the variances were compared for significant differences by the F ratio. Differences showing a statistical probability between .05 and .01 are referred to as significant, and those with a probability of less than .01 are referred to as very significant.

CHAPTER IV

PRESENTATION AND ANALYSIS OF FINDINGS

This chapter consists of the presentation and statistical analysis of the data gathered from the pretest, first posttest, and second posttest assessment of the experimental and control groups participating in this study. The pretest assessment was made between June 1 and June 15, 1968. The first posttest assessment was made between October 1 and October 15, 1968. The second posttest assessment was made between March 1 and March 15, 1969.

Three assessment instruments were used each time: (1) Tennessee Self Concept Scale (TSCS), (2) the Semantic Differential, and (3) IPAT Anxiety Scale Questionnaire. Each of these was administered to each student in the experimental and control groups during the time intervals referred to above. Because of the fact that members of the control group were not available at any time as a group, and that members of the experimental group were not available as a group after the conclusion of the summer training program, a single uniform testing date could not be adhered to. It is believed, however, that the two-week range in dates for any one testing period was not sufficiently wide to invalidate the results.

The original experimental group consisted of 27 students who completed a precollege orientation program at the Arkansas Enterprises for the Blind during the summer of 1968, and who entered college for the first time in the fall of 1968. The original control group consisted of 18 students who did not participate in any type of precollege orientation program, and who entered college for the first time in the fall of 1968. The total group at the beginning of the study consisted of 45 students, 27 in the experimental and 18 in the control group.

Out of the original 45 students who participated in the pretest, 13 (4 experimentals and 9 controls) dropped out of college at some point during the freshman year. The remaining 32 students (23 experimentals and 9 controls) comprised the final group of students for whom complete data (pretest, first posttest, and second posttest) were gathered.

These complete data were used to test null hypotheses 1, 2, and 3, having to do with differences in self-concept, attitude toward other relevant concepts, and level of anxiety, which might be related to the summer training program. The partial data (pretest only) on the original 45 students were used to test null hypothesis 4, having to do with rate of attrition as it might be related to the summer training program.

Figure 1 illustrates the design which was used for making comparisons for the 32 subjects who persisted throughout the school year (Hypotheses 1, 2, and 3). Comparisons 1, 2, and 3 were between the experimental and control groups at the three times when the assessment instruments used in this study were administered. Comparisons 4, 5, and 6 were between the members of the experimental groups at these three times to determine what, if any, changes occurred over time. Comparisons 7, 8, and 9 were between the members of the control group at these three times to determine what, if any, changes occurred over time.

Figure 2 illustrates the design which was used for making comparisons on pretest data between the 32 students who persisted and the 13 students who did not persist through the school year (Hypothesis 4). Comparisons 1 and 10 were between the experimental and control groups when divided

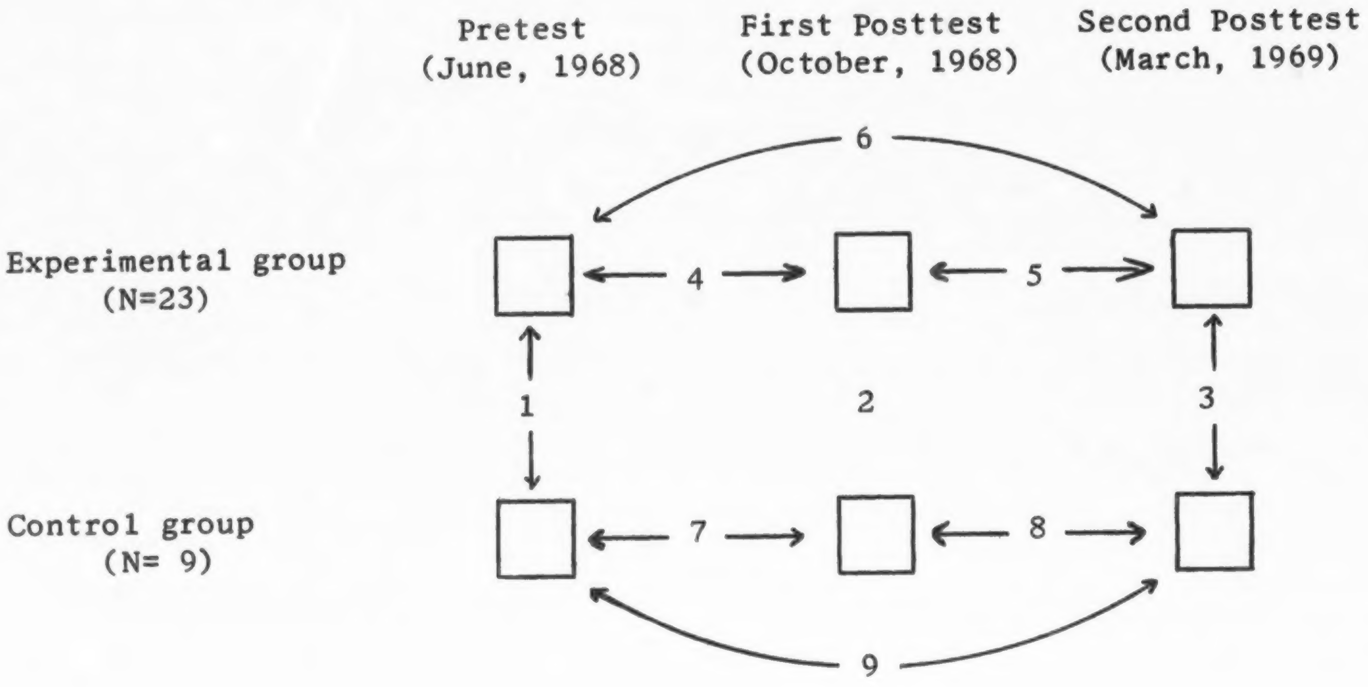
Pretest
(June, 1968)
First Posttest
(October, 1968)
Second Posttest
(March, 1969)
6
Experimental group
(N=23)
4
5
1
2
3
Control group
(N= 9)
7
8
9

FIGURE 1

DESIGN USED FOR MAKING COMPARISONS OF PERSISTERS ON PRETEST, POSTTEST, AND SECOND POSTTEST DATA.

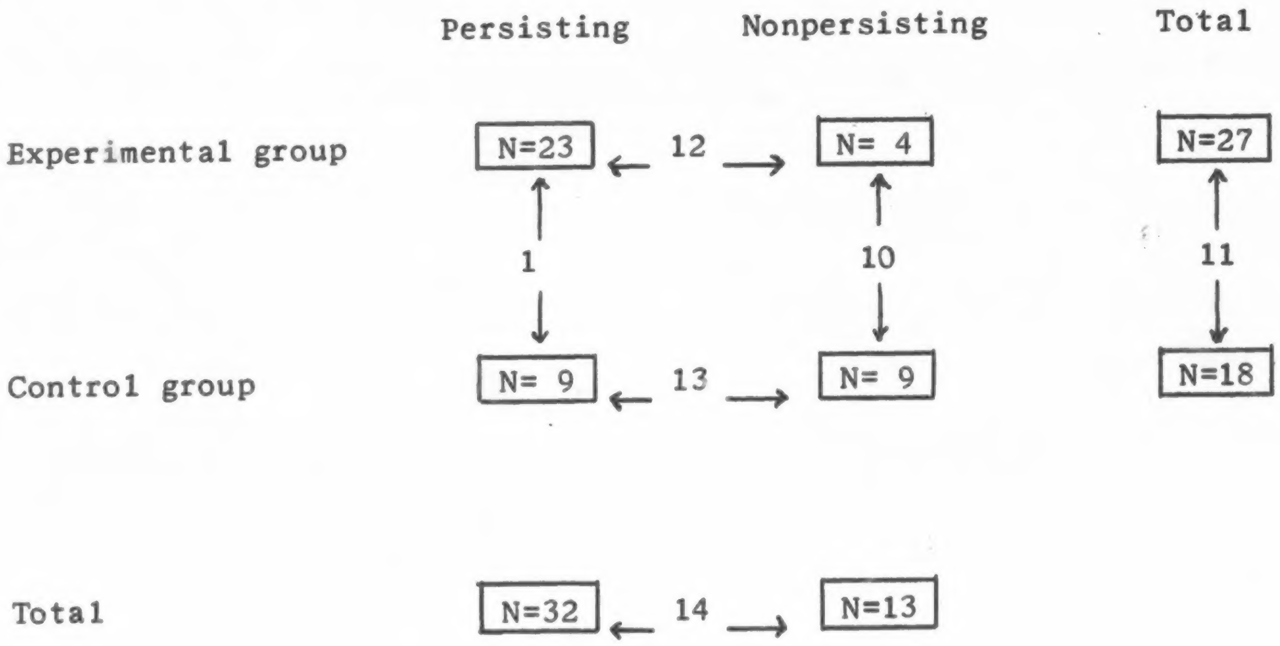
Persisting
Nonpersisting
Total
Experimental group
N=23
12
N= 4
N=27
1
10
11
Control group
N= 9
13
N= 9
N=18
Total
N=32
14
N=13

FIGURE 2

DESIGN USED FOR MAKING COMPARISONS OF PERSISTERS AND NONPERSISTERS ON PRETEST DATA.

into persisting and nonpersisting students. Comparison 11 was between the experimental and control groups as a whole. Comparisons 12, 13, and 14 were between persisting and nonpersisting students when grouped as experimental or control groups, and when looked at as a whole.

In comparing the groups in this study, means and standard deviations were computed. The means were compared for significant differences by the t test, and the variances were compared for significant differences by the F ratio. All computations were made by a SDS Sigma VII computer at the Vanderbilt University Computer Center in Nashville, Tennessee. Differences showing a statistical probability between .05 and .01 are referred to in the discussion as significant. Those with a probability of less than .01 are referred to as very significant.

Hypothesis 1. There is no significant difference, with respect to self-concept as measured by the Tennessee Self Concept Scale, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind, and have then gone to college.

The testing of this null hypothesis involved several steps, the first of which was the comparison of scores made on the subscales of the TSCS by the experimental and control groups at the beginning of the training program to see what, if any, differences in measured self-concept appeared before the treatment applied to the experimental group. These differences are shown in Table I.

The Tennessee Self Concept Scale yields 53 subscores. According to Fitts, only 29 are relevant to this study. Of these 29, three showed significant and three showed very significant differences between the

TABLE I

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

Scale	Mean Score Experimental	Mean Score Control	Difference	t Value	P
T/F	1.1	1.2	-0.1	-1.15	.256
SC	34.3	35.8	-1.5	-0.65	.529
Net C	-3.8	2.4	-6.2	-1.40	.168
Total C	28.3	27.1	1.2	0.36	.719
Total P	349.9	335.6	14.3	1.03	.313
Row 1	127.3	122.0	5.3	1.35	.185
Row 2	108.5	105.3	3.2	0.48	.642
Row 3	114.0	108.2	5.8	1.28	.209
Col A	70.9	66.0	4.9	1.52	.135
Col B	71.3	69.3	2.0	0.52	.613
Col C	67.0	66.3	0.7	0.26	.791
Col D	70.9	66.3	4.6	1.26	.215
Col E	69.7	67.6	2.1	0.59	.564
Total V	46.6	39.2	7.4	1.55	.127
Col V	27.5	23.2	4.3	1.25	.221
Row V	19.1	16.0	3.1	1.30	.202
D Score	121.0	98.7	22.3*	2.34	.025
D 5	17.9	9.6	8.3*	2.14	.038
D 4	25.0	34.3	-9.3**	-2.88	.007
D 3	18.2	20.4	-2.2	-0.60	.560
D 2	17.7	26.1	-8.4**	-2.96	.006
D 1	21.3	9.6	11.7**	3.58	.002
DP	57.2	53.9	3.3	0.80	.563
GM	97.7	92.6	5.1	1.33	.190
PSY	49.3	50.7	-1.4	-0.59	.569
PD	77.3	73.2	4.1	0.82	.577
N	85.3	79.7	5.6	1.47	.149
PI	10.1	13.3	-3.2*	-2.19	.034
NDS	11.2	12.7	-1.5	-0.35	.729

* $P < .05$
** $P < .01$

experimental and control groups on pretest data. Five of these six differences were on D scores, which is a summary of the way the students distributed their answers across the five available choices in responding to the items of the scale. One was the PI score, which is the personality integration scale. This is one of six empirically derived scales, and consists of 25 items that differentiate the PI Group from other groups. These data indicate that at the beginning of the training program, the members of the experimental and control groups were somewhat different with respect to self perception and personality integration. Three of the D scores (D, D5, and D1) indicated that the experimental group was more certain with regard to self perception, while two of the D scores (D4 and D2) indicated that the control group was less certain with regard to personality integration.

Table II shows the standard deviations for each of the subscales of the TSCS. None of these yielded a significant F ratio.

Table III shows the differences between these groups at the beginning of the college year, when the summer training program had been concluded and these students were experiencing their initial taste of college life. Only one significant difference occurred, the D1 score. At this point, these two groups were very similar in their self-concepts.

Table IV shows the standard deviations at the beginning of the college year. There were three significant F ratios: Net C, Row 2 P, and D4. The Net C (Net Conflict) scores measure the extent to which positive responses differ from negative responses in the same general area. Row 2 P scores are derived from the items in which the student describes the way he feels about himself (self-satisfaction). D4 scores show less certainty with regard to self perception.

TABLE II

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimental	Control		
T/F	0.26	0.25	1.05	.499
SC	5.53	6.44	1.36	.269
Net C	12.36	8.02	2.38	.104
Total C	8.68	8.61	1.02	.475
Total P	38.45	25.85	2.21	.124
Row 1	10.94	7.31	2.24	.121
Row 2	18.21	13.11	1.93	.170
Row 3	12.63	8.00	2.50	.092
Col A	8.76	6.48	1.83	.191
Col B	10.72	7.02	2.33	.109
Col C	7.27	5.77	1.59	.254
Col D	9.92	6.60	2.26	.117
Col E	9.69	8.40	1.33	.352
Total V	11.99	12.38	1.07	.422
Col V	9.00	8.14	1.22	.403
Row V	6.40	5.00	1.64	.240
D Score	24.17	24.75	1.05	.432
D 5	10.09	9.26	1.19	.423
D 4	8.58	7.21	1.41	.316
D 3	9.01	11.15	1.53	.203
D 2	7.35	7.01	1.10	.472
D 1	8.78	7.02	1.56	.263
DP	11.34	7.66	2.19	.126
GM	10.66	6.91	2.38	.104
PSY	5.65	5.94	1.11	.397
PD	13.77	8.81	2.44	.097
N	10.08	8.56	1.39	.327
PI	3.66	3.87	1.12	.388
NDS	11.14	8.62	1.67	.230

* $P < .05$
** $P < .01$

TABLE III

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
T/F	1.1	1.2	-0.1	-0.38	.705
SC	36.1	35.6	0.5	0.22	.820
Net C	- 1.3	3.1	-4.4	-1.03	.314
Total C	29.5	32.7	-3.2	-0.91	.629
Total P	350.0	341.3	8.7	0.58	.573
Row 1	128.2	123.4	4.8	1.19	.242
Row 2	107.3	109.0	-1.7	-0.24	.807
Row 3	114.6	108.9	5.7	1.14	.261
Col A	70.1	66.3	3.8	1.32	.194
Col B	71.8	70.7	1.1	0.28	.776
Col C	67.0	65.7	1.3	0.40	.694
Col D	71.5	70.3	1.2	0.33	.745
Col E	69.7	68.3	1.4	0.38	.711
Total V	42.7	41.4	1.3	0.25	.800
Col V	26.5	24.8	1.7	0.44	.667
Row V	16.2	16.7	-0.5	-0.25	.803
D Score	120.1	107.1	13.0	1.58	.121
D 5	18.0	13.4	4.6	1.26	.216
D 4	26.6	31.0	-4.4	-1.32	.193
D 3	18.4	19.8	-1.4	-0.37	.713
D 2	16.5	22.3	-5.8	-1.94	.059
D 1	20.6	13.4	7.2*	2.17	.036
DP	57.1	57.0	0.1	0.03	.975
GM	99.3	93.9	5.4	1.37	.177
PSY	48.7	47.9	0.8	0.48	.640
PD	76.4	76.6	-0.2	-0.02	.979
N	83.5	79.8	3.7	0.81	.568
PI	10.8	12.6	-1.8	-1.18	.247
NDS	11.3	11.3	0.0	0.00	.993

* $P < .05$

** $P < .01$

TABLE IV

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
T/F	0.21	0.27	1.72	.151
SC	6.32	5.32	1.41	.318
Net C	8.91	14.90	2.79*	.027
Total C	8.01	10.52	1.73	.148
Total P	42.04	24.71	2.89	.063
Row 1	10.28	9.61	1.15	.446
Row 2	20.55	10.87	3.57*	.035
Row 3	13.04	11.76	1.23	.401
Col A	7.80	5.36	2.12	.138
Col B	10.66	8.12	1.72	.217
Col C	9.38	6.76	1.92	.171
Col D	9.83	5.70	2.98	.058
Col E	9.48	7.18	1.74	.211
Total V	12.21	12.68	1.08	.413
Col V	9.90	9.60	1.06	.495
Row V	4.99	5.39	1.17	.362
D Score	20.22	22.83	1.28	.305
D 5	9.06	9.29	1.05	.431
D 4	9.48	5.02	3.56*	.035
D 3	9.57	9.20	1.08	.485
D 2	8.04	6.38	1.59	.255
D 1	8.25	8.68	1.11	.396
DP	12.23	7.28	2.82	.067
GM	10.67	7.71	1.92	.172
PSY	4.32	4.14	1.09	.478
PD	13.28	10.93	1.48	.293
N	12.74	8.73	2.13	.136
PI	4.08	3.05	1.79	.199
NDS	11.61	7.31	2.52	.090

* $P < .05$

** $P < .01$

Table V shows the differences between these groups toward the conclusions of the school year. Three significant differences were found: Col A, D2, and D1. Column A (Physical Self) scores indicate that the experimentals were more accepting of their physical self than the controls. D2 and D1 scores indicate that the experimentals are more positive in their self perceptions.

Table VI shows the standard deviations toward the conclusion of the school year. There were seven significant _F_ ratios: Net C (Net Conflict), Row 1 P Score (Identity), Row 3 P Score (Behavior), Col A (Physical Self), D Score (Distribution), D5, and GM (General Maladjustment); and one very significant _F_ ratio: T/F (True-False ratio). On six of the significant _F_ ratios the experimental group had the smaller variance, indicating that as a group they were less deviant than the control group.

The data on Tables I through VI suggest that the self-concept as measured by the TSCS is a valid criterion in determining the effectiveness of a college preparatory program with regard to promoting positive change in the self-concept of students who attend such a program prior to entering college for the first time. The data from Tables I and II show few significant differences between groups prior to the experimental group beginning the training program. The data from Tables III and IV indicate that the two groups were quite similar in self-concepts when they first entered college. The second posttest assessment as shown on Tables V and VI yielded three significant _t_ scores, seven significant _F_ ratios, and one very significant _F_ ratio, most of which suggest a more positive self-concept for the experimental group than the control group. While the experimental group was less deviant across all scales, the control group was more deviant across all scales than they were on the

TABLE V

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
T/F	1.1	1.1	0.0	1.08	.290
SC	36.3	36.8	-0.5	-0.19	.846
Net C	-1.1	1.9	-3.0	-0.83	.579
Total C	29.7	27.7	2.0	0.60	.561
Total P	357.3	339.2	18.1	1.60	.117
Row 1	130.0	123.9	6.1	1.91	.063
Row 2	112.5	106.2	6.3	1.25	.217
Row 3	114.8	109.1	5.7	1.34	.188
Col A	72.0	66.0	6.0*	2.30	.027
Col B	73.0	68.9	4.1	1.26	.214
Col C	67.2	66.8	0.4	0.15	.878
Col D	73.6	69.7	3.9	1.14	.261
Col E	71.5	67.9	3.6	1.22	.231
Total V	41.9	43.0	-1.1	-0.25	.800
Col V	24.6	23.9	0.7	0.23	.818
Row V	17.3	19.1	-1.8	-0.84	.587
D Score	118.9	106.7	12.2	1.36	.181
D 5	16.9	13.7	3.2	0.81	.568
D 4	28.3	30.3	-2.0	-0.55	.591
D 3	17.6	19.4	-1.8	-0.53	.608
D 2	17.6	24.1	-6.5*	-2.96	.016
D 1	19.6	12.4	7.2*	2.29	.027
DP	58.2	56.0	2.2	0.70	.506
GM	99.7	94.6	5.1	1.80	.079
PSY	47.3	49.6	-2.3	-1.35	.186
PD	77.8	73.3	4.5	1.03	.313
N	85.4	80.4	5.0	1.37	.177
PI	11.0	11.9	-0.9	-0.64	.531
NDS	6.8	12.0	-5.2	-1.63	.110

* $P < .05$

** $P < .01$

TABLE VI

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
T/F	0.20	0.06	11.16**	.001
SC	5.97	5.36	1.24	.395
Net C	10.31	5.64	3.34*	.042
Total C	8.50	8.26	1.06	.497
Total P	25.74	35.79	1.93	.106
Row 1	6.67	11.41	2.92*	.022
Row 2	12.82	12.31	1.08	.482
Row 3	8.98	14.62	2.65*	.034
Col A	5.46	9.22	2.85*	.024
Col B	7.52	10.34	1.89	.113
Col C	6.20	8.23	1.76	.140
Col D	8.05	10.16	1.59	.184
Col E	6.84	9.05	1.75	.143
Total V	11.58	9.60	1.45	.301
Col V	7.39	8.25	1.25	.319
Row V	5.34	5.35	1.00	.462
D Score	19.43	30.17	2.41*	.049
D 5	8.51	13.58	2.55*	.039
D 4	8.99	10.26	1.30	.293
D 3	8.12	10.62	1.71	.152
D 2	5.33	6.23	1.37	.264
D 1	7.76	8.44	1.18	.352
DP	8.36	6.28	1.77	.205
GM	6.04	9.90	2.69*	.031
PSY	4.50	3.50	1.65	.237
PD	10.71	12.17	1.29	.298
N	8.64	10.50	1.48	.221
PI	3.30	4.01	1.48	.222
NDS	8.17	8.02	1.04	.490

* $P < .05$

** $P < .01$

pretest or first posttest assessments. The college experience was shown to enhance the self-concepts of the experimental group, while the self-concepts of the control group appeared to become more negative. On the basis of the data shown in Tables I through VI, therefore, null hypothesis 1 could not be accepted.

In addition to examining the differences between the experimental and control groups to see whether any differences developed over time which could be related to the summer training program of the Arkansas Enterprises for the Blind, which the experimental group had experienced, it seemed desirable to examine each group separately over the period of time involved in this study to see what differences, if any, appeared in either group when compared with itself at a different point in time.

Tables VII through XII present the means and standard deviations on the subscales of the TSCS for the experimental group (already shown in Tables I through VI) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

Table VII shows the differences between the means on the pretest and first posttest. There was one significant difference: Row V scores (the sum of the variations across the rows). The lack of difference here suggests that at the time the experimental group entered college their self-concepts had changed very little as a result of their having attended a college preparatory program.

Table VIII shows the standard deviations on the pretest and first posttest. There were no significant F ratios.

Table IX shows the differences between the means on the first and second posttests. There was one significant difference, Row 2 P scores

TABLE VII

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Pretest	First Posttest			
T/F	1.1	1.1	0.0	-1.23	.229
SC	34.3	36.1	-1.8	-1.69	.101
Net C	-3.8	-1.3	-2.5	-0.99	.668
Total C	28.3	29.5	-1.2	-0.55	.591
Total P	349.9	350.0	-0.1	-0.03	.976
Row 1	127.3	128.2	-0.9	-0.53	.607
Row 2	108.5	107.3	1.2	0.49	.636
Row 3	114.0	114.6	-0.6	-0.34	.737
Col A	70.9	70.1	0.8	0.87	.601
Col B	71.3	71.8	-0.5	-0.31	.755
Col C	67.0	67.0	0.0	0.00	1.000
Col D	70.9	71.5	-0.9	-0.30	.762
Col E	69.7	69.7	0.0	0.10	.921
Total V	46.6	42.7	3.9	1.49	.148
Col V	27.5	26.5	1.0	0.52	.612
Row V	19.1	16.2	2.9*	2.42	.023
D Score	121.0	120.1	0.9	0.23	.813
D 5	17.9	18.0	-0.1	-0.04	.965
D 4	25.0	26.6	-1.6	-0.83	.581
D 3	18.2	18.4	-0.2	-0.12	.900
D 2	17.7	16.5	1.2	0.69	.503
D 1	21.3	20.6	0.7	0.59	.566
DP	57.2	57.1	0.1	0.03	.978
GM	97.7	99.3	-1.6	-1.11	.281
PSY	49.3	48.7	0.6	0.52	.612
PD	77.3	76.4	0.9	0.59	.568
N	85.3	83.5	1.8	0.87	.602
PI	10.1	10.8	-0.7	-1.02	.318
NDS	11.2	11.3	-0.1	-0.06	.950

* $P < .05$

** $P < .01$

TABLE VIII

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Standard Deviation Pretest	 First Posttest	F Ratio	P
T/F	0.26	0.21	1.59	.144
SC	5.53	6.32	1.30	.269
Net C	12.36	8.91	1.92	.066
Total C	8.68	8.01	1.17	.355
Total P	38.45	42.04	1.20	.339
Row 1	10.94	10.28	1.13	.387
Row 2	18.21	20.55	1.27	.287
Row 3	12.63	13.04	1.07	.442
Col A	8.76	7.80	1.26	.294
Col B	10.72	10.66	1.01	.490
Col C	7.27	9.38	1.66	.120
Col D	9.92	9.83	1.02	.484
Col E	9.69	9.48	1.05	.459
Total V	11.99	12.21	1.04	.467
Col V	9.00	9.90	1.21	.329
Row V	6.40	4.99	1.64	.126
D Score	24.17	20.22	1.43	.204
D 5	10.09	9.06	1.24	.309
D 4	8.58	9.48	1.22	.321
D 3	9.01	9.57	1.13	.390
D 2	7.35	8.04	1.20	.339
D 1	8.78	8.25	1.13	.386
DP	11.34	12.23	1.16	.363
GM	10.66	10.67	1.00	.499
PSY	5.65	4.32	1.71	.109
PD	13.77	13.28	1.08	.433
N	10.08	12.74	1.60	.140
PI	3.66	4.08	1.24	.307
NDS	11.14	11.61	1.09	.424

* $P < .05$

** $P < .01$

(Self Satisfaction), and one very significant difference, NDS (Number of Deviant Signs Score) which is the best index of psychological disturbance on the TSCS. This score alone identifies deviant individuals with about 80% accuracy. These two differences indicate that a positive directional trend in a healthy self-concept is developing during the period between the first and second posttests. These data in Table IX also support the notion that the positive effects of the training program at the Arkansas Enterprises for the Blind were being felt during this period of time.

Table X shows the standard deviations between the first and second posttests. There were 11 significant differences: Total P (reflects the overall level of self esteem), Row 1 (Identity), Row 2 (Self Satisfaction), Row 3 (Behavior), Column A (Physical Self), Column B (Moral-Ethical Self), Column C (Personal Self), D 2 (Distribution Score), DP (Defensive Positive Scale), N (Neurosis Scale), NDS (Number of Deviant Signs Score); and one very significant difference: GM (General Maladjustment Scale). All of these scores indicate that the experimentals, as a group, were less varient and were more homogeneous than on either pretest or first posttest assessments. These F ratios further support the directional trend of a healthy, more positive self-concept.

Table XI shows the differences between the means on the pretest and second posttest. There were two significant differences: D 4 (Distribution Score) and NDS (Number of Deviant Signs Score). These data are generally consistent with the data in Table IX.

Table XII shows the difference in standard deviations between the pretest and second posttest. There were five significant differences and one very significant difference. The significant differences were: Total P (reflects the overall level of self esteem), Row 1 (Identity),

TABLE IX

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	First Posttest	Second Posttest			
T/F	1.1	1.1	0.0	-0.09	.929
SC	36.1	36.3	-0.2	-0.37	.713
Net C	-1.3	-1.1	-0.1	-0.07	.944
Total C	29.5	29.7	-0.2	-0.09	.925
Total P	350.0	357.3	-7.3	-1.34	.191
Row 1	128.2	130.0	-1.8	-1.04	.309
Row 2	107.3	112.5	-5.2*	-2.02	.054
Row 3	114.6	114.8	-0.2	-0.10	.919
Col A	70.1	72.0	-1.9	-1.50	.146
Col B	71.8	73.0	-1.2	-0.82	.573
Col C	67.0	67.2	-0.2	-0.09	.925
Col D	71.5	73.6	-2.1	-1.83	.077
Col E	69.7	71.5	-1.8	-1.39	.176
Total V	42.7	41.9	0.8	0.36	.720
Col V	26.5	24.6	1.9	1.25	.221
Row V	16.2	17.3	-1.1	-1.19	.246
D Score	120.1	118.9	1.2	0.38	.710
D 5	18.0	16.9	1.1	0.72	.514
D 4	26.6	28.3	-1.7	-1.05	.306
D 3	18.4	17.6	0.8	0.52	.615
D 2	16.5	17.6	-1.1	-0.87	.601
D 1	20.6	19.6	1.0	0.69	.502
DP	57.1	58.2	-1.1	-0.61	.554
GM	99.3	99.7	-0.4	-0.29	.772
PSY	48.7	47.3	1.4	1.39	.177
PD	76.4	77.8	-1.4	-0.87	.600
N	83.5	85.4	-1.9	-0.96	.651
PI	10.8	11.0	-0.2	-0.31	.760
NDS	11.3	6.8	4.5**	2.98	.007

* $P < .05$

** $P < .01$

TABLE X

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	First Posttest	Second Posttest		
T/F	0.21	0.20	1.11	.407
SC	6.32	5.97	1.12	.396
Net C	8.91	10.31	1.34	.250
Total C	8.01	8.50	1.13	.391
Total P	42.04	25.74	2.67*	.013
Row 1	10.28	6.67	2.38*	.024
Row 2	20.55	12.82	2.57*	.016
Row 3	13.04	8.98	2.11*	.044
Col A	7.80	5.46	2.04*	.050
Col B	10.66	7.52	2.01*	.054
Col C	9.38	6.20	2.29*	.029
Col D	9.83	8.05	1.49	.177
Col E	9.48	6.84	1.92	.067
Total V	12.21	11.58	1.11	.403
Col V	9.90	7.39	1.80	.089
Row V	4.99	5.34	1.15	.376
D Score	20.22	19.43	1.08	.427
D 5	9.06	8.51	1.13	.385
D 4	9.48	8.99	1.11	.404
D 3	9.57	8.12	1.39	.223
D 2	8.04	5.33	2.27*	.030
D 1	8.25	7.76	1.13	.388
DP	12.23	8.36	2.14*	.040
GM	10.67	6.04	3.12**	.005
PSY	4.32	4.50	1.08	.427
PD	13.28	10.71	1.54	.160
N	12.74	8.64	2.17*	.037
PI	4.08	3.30	1.52	.165
NDS	11.61	8.17	2.02*	.053

* $P < .05$

** $P < .01$

TABLE XI

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Mean Score				
Scale	Pretest	Second Posttest	Difference	t Value	P
T/F	1.1	1.1	0.0	-1.36	.186
SC	34.3	36.3	-2.0	-1.74	.093
Net C	-3.8	-1.1	-2.7	-1.06	.299
Total C	28.3	29.7	-1.4	-0.71	.507
Total P	349.9	357.3	-7.4	-1.19	.247
Row 1	127.3	130.0	-2.7	-1.36	.184
Row 2	108.5	112.5	-4.0	-1.27	.214
Row 3	114.0	114.8	-0.8	-0.33	.740
Col A	70.9	72.0	-1.1	-0.73	.519
Col B	71.3	73.0	-1.7	-0.95	.643
Col C	67.0	67.2	-0.2	-0.09	.927
Col D	70.9	73.6	-2.7	-1.24	.224
Col E	69.7	71.5	-1.8	-1.33	.195
Total V	46.6	41.9	4.7	1.71	.098
Col V	27.5	24.6	2.9	1.38	.178
Row V	19.1	17.3	1.8	1.39	.176
D Score	121.0	118.9	2.1	0.46	.654
D 5	17.9	16.9	1.0	0.52	.614
D 4	25.0	28.3	-3.3*	-2.38	.025
D 3	18.2	17.6	0.6	0.31	.761
D 2	17.7	17.6	0.1	0.03	.974
D 1	21.3	19.6	1.7	1.04	.308
DP	57.2	58.2	-1.0	-0.48	.642
GM	97.7	99.7	-2.0	-1.23	.231
PSY	49.3	47.3	2.0	1.83	.078
PD	77.3	77.8	-0.5	-0.22	.819
N	85.3	85.4	-0.1	-0.06	.951
PI	10.1	11.0	-0.9	-1.05	.307
NDS	11.2	6.8	4.4*	2.63	.015

* $P < .05$
** $P < .01$

TABLE XII

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	Pretest	Second Posttest	F Ratio	P
T/F	0.26	0.20	1.75	.098
SC	5.53	5.97	1.16	.362
Net C	12.36	10.31	1.44	.201
Total C	8.68	8.50	1.04	.463
Total P	38.45	25.74	2.23*	.033
Row 1	10.94	6.67	2.69*	.012
Row 2	18.21	12.82	2.02*	.053
Row 3	12.63	8.98	1.98	.059
Col A	8.76	5.46	2.58*	.016
Col B	10.72	7.52	2.03*	.052
Col C	7.27	6.20	1.38	.230
Col D	9.92	8.05	1.52	.167
Col E	9.69	6.84	2.00	.055
Total V	11.99	11.58	1.07	.436
Col V	9.00	7.39	1.48	.181
Row V	6.40	5.34	1.43	.202
D Score	24.17	19.43	1.55	.157
D 5	10.09	8.51	1.41	.215
D 4	8.58	8.99	1.10	.413
D 3	9.01	8.12	1.23	.314
D 2	7.35	5.33	1.90	.070
D 1	8.78	7.76	1.28	.283
DP	11.34	8.36	1.84	.080
GM	10.66	6.04	3.11**	.005
PSY	5.65	4.50	1.58	.147
PD	13.77	10.71	1.66	.123
N	10.08	8.64	1.36	.237
PI	3.66	3.30	1.23	.317
NDS	11.14	8.17	1.86	.077

* $P < .05$
** $P < .01$

Row 2 (Self Satisfaction), Column A (Physical Self), Column B (Moral-Ethical Self); and the very significant difference was GM (General Maladjustment). These F ratios support the data in Table X and indicate positive gains in self-concept during the period of time covered by this study.

These data in Tables VII through XII show a strong positive tendency on the part of the experimental group toward development of a normal, healthy self-concept, the most significant changes appearing between first and second posttest assessments. This suggests that the effects of a summer orientation program really begin to be felt after the student has been in college for several months.

Tables XIII through XVIII present the means and standard deviations on the subscales of the TSCS for the control group (already shown in Tables I through VI) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

Table XIII shows the differences between the means on the pretest and first posttest. There was one significant difference: D 5 (Distribution Score). This homogeneity indicates that at the time the control group enrolled in college their self-concepts had changed very little during the three months since the pretest assessment.

Table XIV shows the standard deviations between the pretest and first posttest. There was one significant F ratio: Net C (Net Conflict Scores).

Table XV shows the differences between the means for the first posttest and second posttest. There were no significant differences.

TABLE XIII

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

	Mean Score				
Scale	Pretest	First Posttest	Difference	t Value	P
T/F	1.2	1.2	0.0	0.11	.909
SC	35.8	35.6	0.2	0.11	.912
Net C	2.4	3.1	-0.7	-0.14	.883
Total C	27.1	32.7	-5.6	-1.77	.112
Total P	335.6	341.3	-5.7	-0.81	.553
Row 1	122.0	123.4	-1.4	-0.48	.647
Row 2	105.3	109.0	-3.7	-0.92	.614
Row 3	108.2	108.9	-0.7	-0.29	.773
Col A	66.0	66.3	-0.3	-0.18	.853
Col B	69.3	70.7	-1.4	-0.52	.619
Col C	66.3	65.7	0.6	0.33	.748
Col D	66.3	70.3	-4.0	-1.69	.128
Col E	67.6	68.3	-0.7	-0.43	.678
Total V	39.2	41.4	-2.2	-0.87	.585
Col V	23.2	24.8	-1.6	-0.68	.519
Row V	16.0	16.7	-0.7	-0.72	.502
D Score	98.7	107.1	-8.4	-1.43	.190
D 5	9.6	13.4	-3.8*	-2.35	.045
D 4	34.3	31.0	3.3	2.17	.060
D 3	20.4	19.8	0.6	0.29	.772
D 2	26.1	22.3	3.8	1.72	.121
D 1	9.6	13.4	-3.8	-1.34	.217
DP	53.9	57.0	-3.1	-1.14	.287
GM	92.6	93.9	-1.4	-0.63	.554
PSY	50.7	47.9	2.8	1.39	.202
PD	73.2	76.6	-4.4	-1.15	.285
N	79.7	79.8	-0.1	-0.04	.966
PI	13.3	12.6	0.7	0.80	.550
NDS	12.7	11.3	1.4	0.45	.669

* $P <$ .05

** $P <$ .01

TABLE XIV

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

	Standard Deviation			
Scale	Pretest	First Posttest	F Ratio	P
T/F	0.25	0.27	1.14	.429
SC	6.44	5.32	1.47	.300
Net C	8.02	14.90	3.45*	.050
Total C	8.61	10.52	1.49	.291
Total P	25.85	24.71	1.09	.451
Row 1	7.31	9.61	1.72	.228
Row 2	13.11	10.87	1.45	.304
Row 3	8.00	11.76	2.16	.148
Col A	6.48	5.36	1.46	.302
Col B	7.02	8.12	1.34	.344
Col C	5.77	6.76	1.38	.331
Col D	6.60	5.71	1.34	.344
Col E	8.40	7.18	1.37	.333
Total V	12.38	12.68	1.05	.474
Col V	8.14	9.60	1.39	.325
Row V	5.00	5.39	1.16	.419
D Score	24.75	22.83	1.18	.412
D 5	9.26	9.29	1.01	.497
D 4	7.21	5.02	2.06	.163
D 3	11.15	9.20	1.47	.299
D 2	7.01	6.38	1.21	.399
D 1	7.02	8.68	1.53	.281
DP	7.66	7.28	1.11	.445
GM	6.91	7.71	1.24	.383
PSY	5.94	4.14	2.06	.163
PD	8.81	10.93	1.54	.278
N	8.56	8.73	1.04	.479
PI	3.87	3.05	1.62	.256
NDS	8.62	7.31	1.39	.326

* $P < .05$
** $P < .01$

TABLE XV

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

	Mean Score				
Scale	First Posttest	Second Posttest	Differences	t Value	P
T/F	1.2	1.1	0.1	1.25	.244
SC	35.6	36.8	-1.2	-0.60	.573
Net C	3.1	1.9	1.2	0.26	.794
Total C	32.7	27.7	5.0	1.60	.145
Total P	341.3	339.2	2.1	0.33	.744
Row 1	123.4	123.9	-0.4	-0.26	.796
Row 2	109.0	106.2	2.8	0.88	.591
Row 3	108.9	109.1	-0.2	-0.07	.944
Col A	66.3	66.0	0.3	0.14	.886
Col B	70.7	68.9	3.8	0.59	.575
Col C	65.7	66.8	-1.1	-0.73	.508
Col D	70.3	69.7	0.6	0.41	.696
Col E	68.3	67.9	0.4	0.36	.727
Total V	41.4	43.0	-1.6	-0.71	.506
Col V	24.8	23.9	0.9	0.57	.589
Row V	16.7	19.1	-2.4	-1.34	.214
D Score	107.1	106.7	0.4	0.08	.935
D 5	13.4	13.7	-0.3	-0.05	.957
D 4	31.0	30.3	0.7	0.19	.847
D 3	19.8	19.4	0.4	0.17	.862
D 2	22.3	24.1	-1.8	-1.23	.255
D 1	13.4	12.4	1.0	0.81	.553
DP	57.0	56.0	1.0	0.43	.679
GM	93.9	94.6	-0.7	-0.45	.669
PSY	47.9	49.6	-1.7	-0.80	.549
PD	76.6	73.3	3.3	0.92	.614
N	79.8	80.4	-0.6	-0.42	.686
PI	12.6	11.9	0.7	0.73	.509
NDS	11.3	12.0	-0.7	-0.22	.824

* $P < .05$

** $P < .01$

Table XVI shows the standard deviations for the first posttest and second posttest. There was one significant difference: D 4 (Distribution Score), and two very significant differences: T/F (True-False Ratio) and Net C (Net Conflict Scores). These F ratios indicate that the variability of the control group increased during the period of time covered by this study and that this increase was most significant during the time between the first and second posttest assessments. These data suggest that the control group, being less prepared to meet the variety of situations they encountered in college, were not able to adequately cope with these situations and remain as positive in their self-concepts as they were measured on pretest data.

Table XVII shows the differences between the means for pretest and second posttest. There were no significant differences. These data are similar to the data in Table XV.

Table XVIII shows the standard deviations for the pretest and second posttest. There was one significant difference: Row 3 P Score (Behavior), and one very significant difference: T/F (True-False Ratio). These data are similar to the data in Table XVI and show increased variableness between pretest and second posttest assessments, indicating lack of self-concept enhancement.

The data presented in Tables XIII through XVIII suggest that the control group was changing in a somewhat negative direction, as measured by the TSCS, and that this change was most pronounced during the period of time between the first and second posttest assessments. The negative direction of this change suggests that their college experiences were proving less satisfying than they had anticipated (pretest data).

TABLE XVI

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	First Posttest	Second Posttest		
T/F	0.27	0.06	21.17**	.000
SC	5.32	5.36	1.01	.492
Net C	14.90	5.64	6.96**	.007
Total C	10.52	8.26	1.62	.254
Total P	24.71	35.79	2.10	.158
Row 1	9.61	11.41	1.41	.319
Row 2	10.87	12.31	1.28	.367
Row 3	11.76	14.62	1.54	.276
Col A	5.36	9.22	2.96	.073
Col B	8.12	10.34	1.62	.255
Col C	6.76	8.23	1.48	.296
Col D	5.70	10.16	3.18	.061
Col E	7.18	9.05	1.59	.263
Total V	12.68	9.60	1.74	.224
Col V	9.60	8.25	1.35	.339
Row V	5.39	5.35	1.01	.493
D Score	22.83	30.17	1.75	.223
D 5	9.29	13.58	2.14	.151
D 4	5.02	10.26	4.17*	.030
D 3	9.20	10.62	1.33	.347
D 2	6.38	6.23	1.05	.474
D 1	8.68	8.44	1.06	.470
DP	7.28	6.28	1.34	.343
GM	7.71	9.90	1.65	.246
PSY	4.14	3.50	1.39	.324
PD	10.93	12.17	1.24	.385
N	8.73	10.50	1.45	.306
PI	3.05	4.01	1.74	.226
NDS	7.31	8.02	1.20	.401

* $p < .05$
** $p < .01$

TABLE XVII

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Mean Score				
Scale	Pretest	Second Posttest	Difference	t Value	P
T/F	1.2	1.1	0.1	1.54	.160
SC	35.8	36.8	-1.0	-0.52	.624
Net C	2.4	1.9	0.5	0.18	.855
Total C	27.1	27.7	-0.6	-0.20	.838
Total P	335.6	339.2	-3.6	-0.53	.614
Row 1	122.0	123.9	-1.9	-0.68	.522
Row 2	105.3	106.2	-0.9	-0.36	.728
Row 3	108.2	109.1	-0.9	-0.33	.745
Col A	66.0	66.0	0.0	0.00	1.000
Col B	69.3	68.9	0.4	0.20	.839
Col C	66.3	66.8	-0.5	-0.22	.822
Col D	66.3	69.7	-3.4	-0.06	.322
Col E	67.6	67.9	-0.3	-0.17	.866
Total V	39.2	43.0	-3.8	-1.03	.335
Col V	23.2	23.9	-0.7	-0.24	.810
Row V	16.0	19.1	-3.1	-1.61	.144
D Score	98.7	106.7	-8.0	-1.01	.344
D 5	9.6	13.7	-4.1	-1.06	.319
D 4	34.3	30.3	4.0	1.20	.264
D 3	20.4	19.4	1.0	0.43	.678
D 2	26.1	24.1	2.0	0.88	.590
D 1	9.6	12.4	-2.8	-1.17	.275
DP	53.9	56.0	-2.1	-1.04	.332
GM	92.6	94.6	-2.0	-0.92	.614
PSY	50.7	49.6	1.1	0.70	.511
PD	73.2	73.3	-0.1	-0.04	.969
N	79.7	80.4	-0.8	-0.27	.786
PI	13.3	11.9	1.4	0.85	.573
NDS	12.7	12.0	0.7	0.22	.828

* $P < .05$
** $P < .01$

TABLE XVIII

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	Pretest	Second Posttest	F Ratio	P
T/F	0.25	0.06	18.57**	.001
SC	6.44	5.36	1.44	.307
Net C	8.02	5.64	2.02	.170
Total C	8.61	8.26	1.09	.455
Total P	25.85	35.79	1.92	.188
Row 1	7.31	11.41	2.43	.115
Row 2	13.11	12.31	1.13	.432
Row 3	8.00	14.62	3.34*	.054
Col A	6.48	9.22	2.02	.169
Col B	7.02	10.34	2.17	.147
Col C	5.77	8.23	2.04	.167
Col D	6.60	10.16	2.37	.122
Col E	8.40	9.05	1.16	.419
Total V	12.38	9.60	1.66	.244
Col V	8.14	8.25	1.03	.485
Row V	5.00	5.35	1.14	.427
D Score	24.75	30.17	1.49	.294
D 5	9.26	13.58	2.15	.150
D 4	7.21	10.26	2.02	.169
D 3	11.15	10.62	1.10	.447
D 2	7.01	6.23	1.26	.374
D 1	7.02	8.44	1.45	.306
DP	7.66	6.28	1.48	.294
GM	6.91	9.90	2.05	.165
PSY	5.94	3.50	2.87	.079
PD	8.81	12.17	1.90	.190
N	8.56	10.50	1.51	.287
PI	3.87	4.01	1.07	.461
NDS	8.62	8.02	1.16	.421

* $P < .05$
** $P < .01$

Hypothesis 2. There is no significant difference, with respect to attitude toward certain personal concepts as measured by a semantic differential, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

The testing of this null hypothesis involved several steps, the first of which was the comparison of scores made on the subscales of the Semantic Differential by the experimental and control groups at the beginning of the training program to see what, if any, differences in attitude toward certain personal concepts appeared before the treatment applied to the experimental group. These differences are shown in Table XIX.

The Semantic Differential yields scores in three areas: activity, potency, and evaluative. Table XIX shows the differences in the means for the experimental and control groups on pretest data. There were no significant differences. These data indicate that both groups as measured by the Semantic Differential were homogeneous prior to the treatment applied to the experimental group.

Table XX shows the standard deviations for the experimental and control groups on pretest data. There were no significant differences with regard to variances between these groups, which supports the data in Table XIX.

Table XXI shows the differences in the means between these groups at the beginning of the college year, when the summer training program had been concluded. There were no significant differences at this point. The two groups were very similar in their concept formation.

TABLE XIX

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
Activity	24.6	25.2	-0.6	-0.15	.873
Potency	12.1	17.6	-5.6	-1.18	.247
Evaluative	88.1	81.0	7.1	0.80	.562

* $P < .05$
** $P < .01$

TABLE XX

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
Activity	10.18	10.03	1.03	.484
Potency	11.76	11.91	1.02	.448
Evaluative	21.98	24.45	1.24	.324

* $P < .05$
** $P < .01$

TABLE XXI

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
Activity	28.2	23.2	5.0	1.30	.203
Potency	18.1	14.7	3.4	0.58	.573
Evaluative	92.4	85.2	7.2	0.73	.523

* $P < .05$
** $P < .01$

Table XXII shows the standard deviations at the beginning of the college year. There were no significant *F* ratios, indicating very similar populations at this time.

Table XXIII shows the differences in the means toward the conclusion of the school year. There were two significant differences: activity (the students in the experimental group saw themselves as being more active as regards the nine personal concepts listed on the scale, while the control group scored more in the passive areas on these nine concepts) and evaluative (students in the experimental group were consistently more positive in their evaluation of themselves and their college surroundings as represented by the nine concepts on the semantic differential). These data indicate the first significant differences between the groups and support the data and conclusions presented in Table V, which suggests that during the period of time between the first and second posttests the effects of the summer training program were beginning to become evident in the ways the students in the experimental group were reacting to their college environment.

Table XXIV shows the standard deviations toward the conclusion of the college year. There was one significant difference: evaluative, as discussed above.

The data presented in Tables XIX through XXIV suggest that a semantic differential is a valid method of determining if relevant concepts will undergo change as a result of a summer training program specifically designed to enhance the student's concept of college and the environment which surrounds it. The two groups appeared to be homogeneous, both on pretest and first posttest assessments. The significant differences did not appear until the second posttest assessment when the experimental

TABLE XXII

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
Activity	10.46	7.74	1.82	.192
Potency	13.42	19.27	2.06	.085
Evaluative	23.26	29.02	1.56	.195

* P < .05
** P < .01

TABLE XXIII

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
Activity	28.9	19.1	9.8*	2.06	.045
Potency	16.6	7.7	8.9	1.90	.065
Evaluative	95.7	69.3	26.4*	2.31	.026

* P < .05
** P < .01

TABLE XXIV

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
Activity	10.96	14.73	1.81	.129
Potency	12.31	10.85	1.29	.372
Evaluative	23.04	41.25	3.21*	.014

* P < .05
** P < .01

group showed a trend toward being more active and more positive in their evaluation of themselves and their college experience. At the same time the control group appeared less active and somewhat more negative in their evaluation of their college experience. It is believed that the students in the experimental group, being better prepared for the college experience by their participation in a summer training program, were able to enhance their previous concept of the college experience and gain more benefits from it. On the basis of the data shown in Tables XIX through XXIV therefore, null hypothesis 2 could not be accepted.

In addition to examining the differences between the experimental and control groups to see whether any differences developed over time which could be related to the summer training program of the Arkansas Enterprises for the Blind, which the experimental group had experienced, it seemed desirable to examine each group separately over the period of time involved in this study to see what differences, if any, appeared in either group when compared with itself at a different point in time.

Tables XXV through XXX present the means and standard deviations on the subscales of the Semantic Differential for the experimental group (already shown in Tables XIX through XXIV) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

Table XXV shows the differences between the means on the pretest and first posttest. There were no significant differences.

Table XXVI shows the standard deviations on the pretest and first posttest. There were no significant F ratios.

Table XXVII shows the differences between the means on the first and second posttests. There were no significant differences.

TABLE XXV

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Pretest	First Posttest			
Activity	24.6	28.2	-3.6	-1.59	.124
Potency	12.1	18.1	-6.0	-1.98	.058
Evaluative	88.1	92.4	-4.3	-0.87	.601

* $P < .05$
** $P < .01$

TABLE XXVI

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	Pretest	First Posttest		
Activity	10.18	10.46	1.05	.451
Potency	11.76	13.42	1.30	.271
Evaluative	21.98	23.26	1.12	.396

* $P < .05$
** $P < .01$

TABLE XXVII

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Mean Scores		Difference	t Value	P
	First Posttest	Second Posttest			
Activity	28.2	28.9	-0.7	-0.38	.709
Potency	18.1	16.6	1.5	0.80	.564
Evaluative	92.4	95.7	-3.3	-0.91	.624

* $P < .05$
** $P < .01$

Table XXVIII shows the standard deviations on the first and second posttests. There were no significant F ratios.

Table XXIX shows the differences between the means on the pretest and second posttest. There was one significant difference: activity, which data supports the data already shown in Table XXIII. These data indicate that students in the experimental group saw themselves and their college experience as being more active (as revealed by the second posttest data) than they had felt they would be (based on their evaluations of themselves as reported on pretest data). This suggests that the training program had a positive effect with regard to concept formation.

Table XXX shows the standard deviations on the pretest and second posttest. There were no significant F ratios.

The data presented in Tables XXV through XXX suggest that the change, while very slight (one significant difference), was in a positive direction. This indicates that the experiences encountered in college by the experimental group were even more satisfying than they had anticipated.

Tables XXXI through XXXVI present the means and standard deviations on the subscales of the Semantic Differential for the control group (already shown in Tables XIX through XXIV) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

Table XXXI shows the differences between the means on the pretest and first posttest. There were no significant differences.

Table XXXII shows the standard deviations on the pretest and first posttest. There were no significant F ratios.

Table XXXIII shows the differences between the means on the first and second posttests. There was one significant difference: evaluative,

TABLE XXVIII

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST

	Standard Deviations			
Scale	First Posttest	Second Posttest	F Ratio	P
Activity	10.46	10.96	1.10	.414
Potency	13.42	12.31	1.19	.345
Evaluative	23.26	23.04	1.02	.483

* $P < .05$
** $P < .01$

TABLE XXIX

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Mean Score				
Scale	Pretest	Second Posttest	Difference	t Value	P
Activity	24.6	28.9	-4.3*	-2.19	.038
Potency	12.1	16.6	-4.5	-1.60	.120
Evaluative	88.1	95.7	-7.6	-1.33	.194

* $P < .05$
** $P < .01$

TABLE XXX

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	Pretest	Second Posttest	F Ratio	P
Activity	10.18	10.96	1.16	.367
Potency	11.76	12.31	1.10	.417
Evaluative	21.98	23.04	1.10	.413

* $P < .05$
** $P < .01$

TABLE XXXI

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Pretest	First Posttest			
Activity	25.2	23.2	2.0	0.80	.550
Potency	17.6	14.7	2.9	0.60	.569
Evaluative	81.0	85.2	-4.2	-0.43	.682

* P < .05
** P < .01

TABLE XXXII

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	Pretest	First Posttest		
Activity	10.03	7.[illegible]	1.68	.239
Potency	11.91	19.27	2.62	.098
Evaluative	24.45	29.02	1.41	.319

* P < .05
** P < .01

TABLE XXXIII

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	First Posttest	Second Posttest			
Activity	23.2	19.1	4.1	1.00	.649
Potency	14.7	7.7	7.0	1.75	.116
Evaluative	85.2	69.3	15.9*	2.40	.042

* P < .05
** P < .01

indicating that the control group was becoming somewhat negative in their evaluation of themselves and the college environment.

Table XXXIV shows the standard deviations on the first and second posttests. There was one significant F ratio: activity, indicating a greater variance for the control group as a whole with regard to the way they viewed themselves and their college environment, and their active/passive role in it.

Table XXXV shows the differences between the means on the pretest and second posttest. There was one significant difference: potency, indicating that the control group saw themselves and their college experience as considerably less potent than they had anticipated it would be as reported on the pretest assessment.

Table XXXVI shows the standard deviations on the pretest and second posttest. There were no significant F ratios.

The data shown in Tables XXXI through XXXVI suggest that the control group encountered considerable difficulty in college, and due to their lack of preparation were beginning to feel somewhat inadequate to cope with the problems which the freshman year in college presented to them at the time of the second posttest assessment. As a group, they appeared less active, less strong or potent, and more negative in their evaluation of themselves and their environment.

Hypothesis 3. There is no significant difference, with respect to level of anxiety as measured by the IPAT Anxiety Scale Questionnaire, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

TABLE XXXIV

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	First Posttest	Second Posttest	F Ratio	P
Activity	7.74	14.73	3.62*	.044
Potency	19.27	10.85	3.15	.063
Evaluative	29.02	41.25	2.02	.170

* $P < .05$
** $P < .01$

TABLE XXXV

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Mean Score				
Scale	Pretest	Second Posttest	Difference	t Value	P
Activity	25.2	19.1	6.1	1.56	.155
Potency	17.6	7.7	9.9*	3.13	.014
Evaluative	81.0	69.3	11.7	0.83	.567

* $P < .05$
** $P < .01$

TABLE XXXVI

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	Pretest	Second Posttest	F Ratio	P
Activity	10.03	14.73	2.16	.149
Potency	11.91	10.85	1.20	.399
Evaluative	24.45	41.25	2.85	.080

* $P < .05$
** $P < .01$

The testing of this null hypothesis involved several steps, the first of which was the comparison of scores made on the subscales of the IPAT Anxiety Scale Questionnaire by the experimental and control groups at the beginning of the training program to see what, if any, differences in measured anxiety appeared before the treatment applied to the experimental group. These differences are shown in Table XXXVII.

The IPAT Anxiety Scale Questionnaire yields five subscales (Defective Integration, Lack of Self Sentiment; Ego Weakness, Lack of Ego Strength; Suspiciousness or Paranoid Insecurity; Guilt Proneness; Frustrative Tension or Id Pressure) and a Total Score. Table XXXVII shows the differences in the means for the experimentals and controls on pretest data. There was one significant difference: Q_4 (Frustrative Tension or Id Pressure). The data in this table suggest that the control group was more anxious and frustrated than the experimental group.

Table XXXVIII shows the standard deviations for the experimentals and controls on pretest data. There were no significant F ratios.

Table XXXIX shows the differences in the means between these groups on first posttest data. There were no significant differences. The data on this table indicate that at the beginning of the college year both groups were similar as far as level of anxiety.

Table XL shows the standard deviations for the experimentals and controls on first posttest data. There were no significant F ratios.

Table XLI shows the differences in the means on second posttest data. There was one significant difference: L (Suspiciousness or Paranoid Insecurity). This suggests that the control group was experiencing anxiety provoking stimuli, which tended to increase their feelings of insecurity and frustration toward their college environment.

TABLE XXXVII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
Q_3	5.5	4.9	0.7	0.65	.526
C	3.1	3.1	0.0	0.02	.979
L	2.8	3.9	-1.1	-1.45	.154
O	9.4	10.2	-0.8	-0.56	.586
Q_4	6.8	9.9	-3.1*	-2.02	.050
Total	27.8	32.0	-4.2	-1.02	.315

* $P < .05$
** $P < .01$

TABLE XXXVIII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
Q_3	2.87	1.83	2.46	.096
C	1.84	2.42	1.73	.147
L	1.99	1.46	1.88	.180
O	3.46	3.87	1.25	.319
Q_4	3.98	3.48	1.31	.361
Total	10.94	9.11	1.44	.306

* $P < .05$
** $P < .01$

TABLE XXXIX

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST DATA

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
Q_3	6.1	5.9	0.2	0.21	.829
C	3.7	2.9	0.8	0.89	.615
L	3.0	3.0	0.0	0.07	.947
O	9.4	9.4	0.0	-0.01	.991
Q_4	7.6	8.7	-1.1	-0.78	.554
Total	28.5	29.9	-1.4	-0.30	.765

* $P < .05$
** $P < .01$

Table XL

THE STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON FIRST POSTTEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
Q_3	2.62	3.62	1.92	.109
C	2.44	1.90	1.65	.237
L	1.85	1.12	2.73	.073
O	3.45	4.69	1.85	.120
Q_4	3.49	3.32	1.11	.470
Total	12.04	11.91	1.02	.479

* $P < .05$
** $P < .01$

TABLE XLI

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
Q_3	5.5	6.0	-0.5	-0.40	.696
C	3.2	3.6	-0.4	-0.40	.692
L	2.9	4.6	-1.7*	-2.20	.034
O	9.0	8.7	0.3	0.22	.822
Q_4	6.7	8.1	-1.4	-1.11	.276
Total	27.3	28.3	-1.0	-0.22	.823

* $P < .05$
** $P < .01$

Table XLII shows the standard deviations on second posttest data. There were no significant F ratios.

The data shown in Tables XXXVII through XLII indicate one significant difference on pretest data (Q_4, Frustrative Tension or Id Pressure) and one significant difference on second posttest data (L, Suspiciousness or Paranoid Insecurity). While the transition from high school senior to college freshman is seen by the student and those who work with him as being fraught with anxiety provoking stimuli, the variable used in this study failed to discriminate effectively between experimental and control groups. Of the 48 possible differences, the IPAT showed minimum significance in only three instances.

This lack of discrimination could be explained in two ways: (1) all students anticipating college attendance may be anxious without regard to whether or not they attended an orientation program and will answer questions on a self-analysis questionnaire similarly; (2) when a sighted person reads the items to a nonsighted student, he may tend to give the expected responses rather than expressing his real feelings. This is noted in Chapter I as a possible limitation to the interpretation of the data in this study. In view of the lack of substantial significant data in Tables XXXVII through XLII, the null hypothesis is accepted.

In addition to examining the differences between the experimental and control groups to see whether any differences developed over time which could be related to the summer training program of the Arkansas Enterprises for the Blind, which the experimental group had experienced, it seemed desirable to examine each group separately over the period of time involved in this study to see what differences, if any, appeared in either group when compared with itself at a different point in time.

TABLE XLII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL AND CONTROL GROUPS ON SECOND POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimental	Control		
Q_3	2.66	3.97	2.22	.066
C	2.24	1.81	1.52	.276
L	1.86	2.01	1.17	.361
O	3.80	4.03	1.12	.386
Q_4	3.16	3.82	1.47	.225
Total	10.70	14.85	1.93	.107

* $P < .05$
** $P < .01$

Tables XLIII through XLVIII present the means and standard deviations on the subscales of the IPAT Anxiety Scale Questionnaire for the experimental group (already shown in Tables XXXVII through XLII) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

Table XLIII shows the differences between the means on the pretest and first posttest. There were no significant differences.

Table XLIV shows the standard deviations on the pretest and first posttest. There were no significant F ratios.

Table XLV shows the differences between the means on the first and second posttests. There were no significant differences.

Table XLVI shows the standard deviations on the first and second posttests. There were no significant F ratios.

Table XLVII shows the differences between the means on the pretest and second posttest. There were no significant differences.

Table XLVIII shows the standard deviations on the pretest and second posttest. There were no significant F ratios.

The data on Tables XLIII through XLVIII support the data in Tables XXXVII through XLII indicating that if there was change in the anxiety patterns of the experimental group, it was so slight as to be not significant.

Tables XLIX through LIV present the means and standard deviations on the subscales of the IPAT Anxiety Scale Questionnaire for the control group (already shown in Tables XXXVII through XLII) together with the differences which occurred between the scores made by this group on the pretest, first posttest, and second posttest.

TABLE XLIII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

	Mean Score				
Scale	Pretest	First Posttest	Difference	t Value	P
Q_3	5.6	6.1	-0.5	-0.93	.636
C	3.1	3.7	-0.6	-1.36	.186
L	2.8	3.0	-0.2	-0.59	.565
O	9.4	9.4	0.0	0.00	1.000
Q_4	6.8	7.6	-0.8	-1.41	.170
Total	27.8	28.5	-0.7	-0.27	.784

* $P < .05$
** $P < .01$

TABLE XLIV

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON PRETEST AND FIRST POSTTEST DATA

	Standard Deviation			
Scale	Pretest	First Posttest	F Ratio	P
Q_3	2.87	2.62	1.21	.332
C	1.84	2.44	1.75	.098
L	1.99	1.85	1.16	.362
O	3.46	3.45	1.01	.493
Q_4	3.98	3.49	1.31	.268
Total	10.94	12.04	1.21	.327

* $P < .05$
** $P < .01$

TABLE XLV

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Mean Score First Posttest	 Second Posttest	Difference	t Value	P
Q_3	6.1	5.5	0.6	1.50	.145
C	3.7	3.2	0.5	1.16	.257
L	3.0	2.9	0.1	0.40	.692
O	9.4	9.0	0.4	0.83	.578
Q_4	7.6	6.7	0.9	1.76	.089
Total	28.5	27.3	1.2	0.62	.549

* $P < .05$
** $P < .01$

TABLE XLVI

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Standard Deviation First Posttest	 Second Posttest	F Ratio	P
Q_3	2.62	2.66	1.03	.469
C	2.44	2.24	1.19	.343
L	1.85	1.86	1.01	.489
O	3.45	3.80	1.22	.325
Q_4	3.49	3.16	1.22	.322
Total	12.04	10.70	1.27	.291

* $P < .05$
** $P < .01$

TABLE XLVII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST

	Mean Score				
Scale	Pretest	Second Posttest	Difference	t Value	P
Q_3	6.1	5.5	0.6	1.50	.145
C	3.7	3.2	0.5	1.16	.257
L	3.0	2.9	0.1	0.40	.692
O	9.4	9.0	0.4	0.83	.578
Q_4	7.6	6.7	0.9	1.76	.089
Total	28.5	27.3	1.2	0.62	.549

* $P < .05$
** $P < .01$

TABLE XLVIII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR EXPERIMENTAL GROUP ON PRETEST AND SECOND POSTTEST DATA

	Standard Deviation			
Scale	Pretest	Second Posttest	F Ratio	P
Q_3	2.62	2.66	1.03	.469
C	2.44	2.24	1.19	.343
L	1.85	1.86	1.01	.489
O	3.45	3.80	1.22	.325
Q_4	3.49	3.16	1.22	.322
Total	12.04	10.70	1.27	.291

* $P < .05$
** $P < .01$

Table XLIX shows the differences between the means on pretest and first posttest data. There were no significant differences.

Table L shows the standard deviation on pretest and first posttest data. There was one significant F ratio: Q_3 (Defective Integration, Lack of Self Sentiment). These data indicate that during the summer, between the pretest and first posttest, something occurred which caused the group as a whole to increase in variance with regard to the area measured.

Table LI shows the differences between the means on first and second posttests. There were no significant differences.

Table LII shows the standard deviations on first and second posttests. There were no significant F ratios.

Table LIII shows the differences between the means on pretest and second posttest. There were no significant differences.

Table LIV shows the standard deviations on pretest and second posttest data. There was one significant F ratio: Q_3 (Defective Integration, Lack of Self Sentiment). These data support the data in Table L, and show an even greater variance.

The data in Tables XLIX through LIV support the data previously shown in Tables XXXVII through XLII indicating the beginning of personality integration breakdown and a tendency toward negative evaluation of self and environment of the control group. Even though there are no significant mean differences, the two significant F ratios are consistent with the data and conclusions already cited in this study.

TABLE XLIX

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Pretest	First Posttest			
Q_3	4.9	5.9	-1.0	-0.73	.510
C	3.1	2.9	0.2	0.28	.782
L	3.9	3.0	0.9	1.58	.151
O	10.2	9.4	0.8	0.74	.514
Q_4	9.9	8.7	1.2	1.74	.118
Total	32.0	29.9	2.1	0.75	.521

* $P < .05$
** $P < .01$

TABLE L

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON PRETEST AND FIRST POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	Pretest	First Posttest		
Q_3	1.83	3.62	3.90*	.036
C	2.42	1.90	1.62	.254
L	1.45	1.12	1.69	.237
O	3.87	4.69	1.47	.297
Q_4	3.48	3.32	1.10	.448
Total	9.11	11.91	1.71	.232

* $P < .05$
** $P < .01$

TABLE LI

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	First Posttest	Second Posttest			
Q_3	5.9	6.0	-0.1	-0.11	.915
C	2.9	3.6	-0.7	-0.97	.637
L	3.0	4.6	-1.6	-1.90	.092
O	9.4	8.7	0.7	1.05	.326
Q_4	8.7	8.1	0.6	0.71	.504
Total	29.9	28.3	1.6	0.46	.657

* $P < .05$
** $P < .01$

TABLE LII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON FIRST POSTTEST AND SECOND POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	First Posttest	Second Posttest		
Q_3	3.62	3.97	1.20	.401
C	1.90	1.81	1.10	.447
L	1.12	2.01	3.22	.059
O	4.69	4.03	1.36	.338
Q_4	3.32	3.82	1.33	.348
Total	11.91	14.85	1.55	.273

* $P < .05$
** $P < .01$

TABLE LIII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

Scale	Mean Score		Difference	t Value	P
	Pretest	Second Posttest			
Q_3	4.9	6.0	-1.1	-0.67	.526
C	3.1	3.6	-0.5	-0.59	.574
L	3.9	4.6	-0.7	-0.97	.637
O	10.2	8.7	1.5	1.83	.103
Q_4	9.9	8.1	1.8	1.92	.089
Total	32.0	28.3	3.7	1.30	.228

* $P < .05$
** $P < .01$

TABLE LIV

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR CONTROL GROUP ON PRETEST AND SECOND POSTTEST DATA

Scale	Standard Deviation		F Ratio	P
	Pretest	Second Posttest		
Q_3	1.83	3.97	4.69*	.022
C	2.42	1.81	1.79	.214
L	1.45	2.01	1.91	.190
O	3.87	4.03	1.09	.454
Q_4	3.48	3.82	1.21	.398
Total	9.11	14.85	2.66	.094

* $P < .05$
** $P < .01$

Hypothesis 4. There is no significant difference, with respect to attrition during the freshman year as reported by the colleges they attend, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

The testing of this null hypothesis involved several steps, the first of which was the comparison of scores made on the subscales of the TSCS by the persisting experimentals and persisting controls at the beginning of the training program (pretest data already shown in Tables I and II).

Tables LV through LXIV present the means and standard deviations for making comparisons on pretest data between the 32 students who persisted and the 13 students who did not persist through the school year.

Table LV shows the differences between the means for nonpersisting experimentals and controls on pretest data. There was one significant difference: D 4 (Distribution Score), indicating that nonpersisting controls were less certain with regard to self perception.

Table LVI shows the standard deviations on pretest data for nonpersisting experimentals and controls. There were two significant F ratios: Row 1 P Score (Identity) and Column A (Physical Self).

Table LVII shows the differences between the means for total experimentals and controls on pretest data. There were six significant differences: T/F (True-False Ratio), SC (Self Criticism Score), Net C (Net Conflict Scores), D 4 and D 2 (Distribution Scores), and N (Neurosis Scale). There was also one very significant difference: D 1 (Distribution Score). These data indicate that the two groups were somewhat

TABLE LV

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR NONPERSISTING EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Mean Score				
Scale	Experimental	Control	Difference	t Value	P
T/F	1.0	1.2	-0.3	-1.88	.084
SC	37.3	43.3	-6.0	-1.96	.074
Net C	-5.5	6.1	-11.6	-1.48	.164
Total C	41.0	41.2	-0.2	-0.03	.974
Total P	336.5	329.4	7.1	0.41	.693
Row 1	126.8	125.6	1.2	0.21	.833
Row 2	98.0	98.4	-0.4	-0.06	.955
Row 3	111.8	105.4	6.4	0.83	.571
Col A	75.8	70.4	5.4	0.92	.622
Col B	61.3	61.1	0.2	0.03	.975
Col C	62.3	63.0	-0.7	-0.22	.825
Col D	70.0	66.0	4.0	0.69	.509
Col E	67.3	68.9	-1.6	-0.34	.741
Total V	59.3	55.2	4.1	0.58	.581
Col V	35.0	34.1	0.9	0.15	.877
Row V	24.3	21.1	3.2	0.95	.633
D Score	127.8	127.7	0.1	0.01	.991
D 5	26.0	23.7	2.3	0.41	.689
D 4	12.8	26.2	-13.4*	-2.66	.021
D 3	26.0	14.7	11.3	1.81	.094
D 2	7.5	16.8	-9.3	-2.06	.062
D 1	27.8	18.7	9.1	1.51	.158
DP	48.0	48.0	0.0	0.00	1.000
GM	97.8	94.3	3.5	0.66	.531
PSY	46.0	43.7	2.3	0.49	.637
PD	63.5	63.3	0.2	0.02	.979
N	84.8	78.2	6.6	0.90	.609
PI	6.3	8.9	-2.6	-1.56	.145
NDS	26.8	21.1	5.7	0.51	.627

* $P < .05$
** $P < .01$

TABLE LVI

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR NONPERSISTING EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
T/F	0.25	0.22	1.30	.340
SC	2.87	5.81	4.09	.137
Net C	12.79	13.15	1.06	.464
Total C	6.32	13.25	4.39	.125
Total P	30.87	28.05	1.21	.367
Row 1	14.43	6.93	4.34*	.043
Row 2	10.71	13.87	1.68	.363
Row 3	14.93	11.68	1.63	.257
Col A	14.66	6.69	4.80*	.034
Col B	8.96	6.85	1.71	.241
Col C	5.80	5.66	1.05	.423
Col D	5.66	10.72	3.59	.160
Col E	5.12	8.95	3.05	.193
Total V	6.70	13.00	3.76	.151
Col V	10.71	9.45	1.28	.345
Row V	5.74	5.44	1.11	.401
D Score	22.66	24.40	1.16	.499
D 5	5.94	10.42	3.07	.192
D 4	10.34	7.60	1.85	.216
D 3	13.11	9.18	2.04	.186
D 2	6.81	7.74	1.29	.457
D 1	10.05	10.04	1.00	.442
DP	10.80	10.71	1.02	.436
GM	11.12	7.55	2.17	.169
PSY	3.46	9.01	6.77	.072
PD	9.95	11.96	1.44	.416
N	13.15	11.65	1.27	.347
PI	1.71	3.14	3.38	.172
NDS	18.30	18.64	1.04	.457

* $p < .05$

** $p < .01$

TABLE LVII

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR TOTAL EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
T/F	1.0	1.2	-0.2*	-2.13	.037
SC	34.7	39.6	-4.9*	-2.61	.012
Net C	-4.1	4.3	-8.4*	-2.36	.022
Total C	30.2	34.2	-4.0	-1.18	.244
Total P	347.9	332.5	15.4	1.52	.132
Row 1	127.3	123.8	3.5	1.17	.248
Row 2	107.0	101.9	5.1	1.04	.307
Row 3	113.7	106.8	6.9	1.94	.056
Col A	71.6	68.2	3.4	1.30	.198
Col B	69.9	65.2	4.7	1.54	.127
Col C	66.3	64.7	1.6	0.82	.579
Col D	70.7	66.2	4.5	1.66	.101
Col E	69.4	68.2	1.2	0.43	.676
Total V	48.5	47.2	1.3	0.31	.755
Col V	28.6	28.7	-0.1	-0.01	.987
Row V	19.9	18.6	1.3	0.69	.501
D Score	122.0	113.2	8.8	1.14	.261
D 5	19.1	16.6	2.5	0.75	.536
D 4	23.2	30.3	-7.1*	-2.54	.014
D 3	19.3	17.6	1.7	0.58	.570
D 2	16.1	21.4	-5.3*	-2.10	.039
D 1	22.3	14.1	8.2**	2.88	.006
DP	55.8	50.9	4.9	1.48	.142
GM	97.7	93.4	4.3	1.50	.136
PSY	48.9	47.2	1.7	0.83	.582
PD	75.3	68.3	7.0	1.76	.082
N	85.2	78.9	6.3*	2.02	.047
PI	9.6	11.1	-1.5	-1.32	.190
NDS	13.5	16.9	-3.4	-0.80	.566

* $P < .05$
** $P < .01$

different at the beginning of the study. The data already presented in Table I show when persisting students only are considered, the differences between experimentals and controls deminished and also changed in nature. This suggests that the differences were primarily among the nonpersisting students of both groups.

Table LVIII shows the standard deviations on pretest data for total experimentals and controls. There were three significant F ratios: Row 1 P Score (Identity), GM (General Maladjustment Scale), and PSY (Psychosis Scale). These data indicate the number of basic variances in these two groups at the beginning of the study. Table II shows no significant F ratios; therefore these data suggest that the variances are in nonpersisting students of both groups.

Table LIX shows the differences between the means on pretest data for persisting experimentals and nonpersisting experimentals. There were six significant differences: Total C (Total Conflict Scores), Total V (Total variation in scores on the Scale), D 4 and D 2 (Distribution Scores), PI (Personality Integration Scale), and NDS (Number of Deviant Signs Score). These data indicate that the self-concepts of the nonpersisting experimentals were more deviant, more negative, and generally less healthy than those of the persisting experimentals.

Table LX shows the standard deviations on pretest data for persisting experimentals and nonpersisting experimentals. There were no significant F ratios.

Table LXI shows the differences between the means on pretest data for the persisting controls and nonpersisting controls. There were eleven significant differences: SC (Self Criticism Score), Total C (Total Conflict), Column B (Moral-Ethical Self), Total V, Column V and

TABLE LVIII

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR TOTAL EXPERIMENTAL AND CONTROL GROUPS ON PRETEST DATA

	Standard Deviation			
Scale	Experimental	Control	F Ratio	P
T/F	0.26	0.23	1.21	.345
SC	5.29	7.11	1.81	.085
Net C	12.19	10.73	1.29	.296
Total C	9.45	13.05	1.91	.067
Total P	37.21	26.36	1.99	.072
Row 1	11.19	7.15	2.45*	.029
Row 2	17.56	13.56	1.68	.136
Row 3	12.71	9.82	1.68	.136
Col A	9.64	6.79	2.02	.068
Col B	10.95	7.95	1.90	.086
Col C	7.18	5.80	1.53	.181
Col D	9.33	8.64	1.17	.377
Col E	9.12	8.45	1.17	.377
Total V	12.16	14.81	1.48	.178
Col V	9.44	10.23	1.17	.348
Row V	6.47	5.71	1.28	.299
D Score	23.65	28.13	1.41	.207
D 5	9.95	12.01	1.46	.189
D 4	9.71	8.31	1.36	.255
D 3	9.83	10.34	1.11	.397
D 2	8.04	8.62	1.15	.364
D 1	9.07	9.62	1.13	.383
DP	11.55	9.53	1.47	.207
GM	10.51	7.08	2.20*	.047
PSY	5.46	8.23	2.27*	.029
PD	14.03	11.39	1.52	.187
N	10.30	9.94	1.07	.451
PI	3.69	4.11	1.24	.302
NDS	13.24	14.74	1.24	.303

* $P < .05$
** $P < .01$

TABLE LIX

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

	Mean Score				
Scale	Persisting	Nonpersisting	Difference	t Value	P
T/F	1.1	1.0	0.1	0.56	.590
SC	34.3	37.3	-3.0	-1.03	.314
Net C	-3.8	-5.5	1.7	0.25	.801
Total C	28.3	41.0	-12.7*	-2.77	.010
Total P	349.9	336.5	13.4	0.66	.523
Row 1	127.3	126.8	0.5	0.10	.921
Row 2	108.5	98.0	10.5	1.11	.277
Row 3	114.0	111.8	2.2	0.33	.745
Col A	70.9	75.8	-4.9	-0.92	.633
Col B	71.3	61.3	10.0	1.77	.085
Col C	67.0	62.3	4.7	1.24	.223
Col D	70.9	70.0	0.9	0.17	.862
Col E	69.7	67.3	2.4	0.50	.629
Total V	46.6	59.3	-2.7*	-2.03	.050
Col V	27.5	35.0	-7.5	-1.50	.144
Row V	19.1	24.3	-5.2	-1.51	.141
D Score	121.0	127.8	-6.8	-0.52	.614
D 5	17.9	26.0	-8.1	-1.55	.131
D 4	25.0	12.8	12.2*	2.57	.016
D 3	18.2	26.0	-7.8	-1.51	.141
D 2	17.7	7.5	10.2*	2.57	.016
D 1	21.3	27.8	-6.5	-1.33	.193
DP	57.2	48.0	9.2	1.50	.142
GM	97.7	97.8	-0.1	-0.01	.989
PSY	49.3	46.0	3.3	1.14	.265
PD	77.3	63.5	13.8	1.91	.065
N	85.3	84.8	0.5	0.09	.927
PI	10.1	6.3	5.8*	2.06	.048
NDS	11.2	26.8	-15.6*	-2.35	.026

* $P < .05$
** $P < .01$

TABLE LX

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Persisting	Nonpersisting		
T/F	0.26	0.25	1.09	.449
SC	5.53	2.87	3.71	.153
Net C	12.36	12.79	1.07	.383
Total C	8.68	6.32	1.88	.331
Total P	38.45	30.87	1.55	.402
Row 1	10.94	14.43	1.74	.187
Row 2	18.21	10.71	2.89	.205
Row 3	12.63	14.93	1.40	.270
Col A	8.76	14.66	2.80	.063
Col B	10.72	8.96	1.43	.434
Col C	7.27	5.80	1.57	.397
Col D	9.92	5.66	3.07	.191
Col E	9.69	5.12	3.57	.159
Total V	11.99	6.70	3.20	.182
Col V	9.00	10.71	1.41	.265
Row V	6.40	5.74	1.24	.493
D Score	24.17	22.66	1.14	.469
D 5	10.09	5.94	2.88	.206
D 4	8.58	10.34	1.45	.254
D 3	9.01	13.11	2.12	.126
D 2	7.35	6.81	1.17	.480
D 1	8.78	10.05	1.31	.296
DP	11.34	10.80	1.10	.456
GM	10.66	11.12	1.09	.376
PSY	5.65	3.46	2.66	.227
PD	13.77	9.95	1.92	.325
N	10.08	13.15	1.70	.195
PI	3.66	1.71	4.59	.117
NDS	11.14	18.30	2.70	.070

* $P < .05$
** $P < .01$

TABLE LXI

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Persisting	Nonpersisting			
T/F	1.2	1.2	0.0	-0.56	.591
SC	35.8	43.3	-7.5*	-2.61	.018
Net C	2.4	6.1	-3.7	-0.71	.508
Total C	27.1	41.2	-14.1*	-2.68	.016
Total P	335.6	329.4	6.2	0.48	.642
Row 1	122.0	125.6	-3.6	-1.06	.306
Row 2	105.3	98.4	6.9	1.08	.295
Row 3	108.2	105.4	2.8	0.59	.571
Col A	66.0	70.4	-4.4	-1.43	.169
Col B	69.3	61.1	8.2*	2.52	.022
Col C	66.3	63.0	3.3	1.24	.232
Col D	66.3	66.0	0.3	0.08	.936
Col E	67.6	68.9	-1.3	-0.33	.747
Total V	39.2	55.2	-16.0*	-2.67	.016
Col V	23.2	34.1	-10.9*	-2.62	.018
Row V	16.0	21.1	-5.1*	-2.07	.052
D Score	98.7	127.7	-29.0*	-2.50	.022
D 5	9.6	23.7	-14.1**	-3.04	.008
D 4	34.3	26.2	8.1*	2.32	.032
D 3	20.4	14.7	5.7	1.20	.246
D 2	26.1	16.8	9.3*	2.68	.016
D 1	9.6	18.7	-9.1*	-2.23	.038
DP	53.9	48.0	5.9	1.34	.196
GM	92.6	94.3	-1.7	-0.52	.615
PSY	50.7	43.7	7.0	1.95	.067
PD	73.2	63.3	9.9	2.00	.061
N	79.7	78.2	1.5	0.30	.765
PI	13.3	8.9	4.4*	2.67	.016
NDS	12.7	21.1	-8.4	-1.23	.234

* $P < .05$
** $P < .01$

Row V (all the variation scores on the Scale), D Score, D 4, D 2, and D 1 (Distribution Scores), and PI (Personality Integration Scale). There was one very significant difference: D 5 (Distribution Score). These data indicate that the self-concepts of the nonpersisting control students were more deviant and less positive. All of the Variability Scores and Distribution Scores were more negative than for the persisting controls. The personality integration of the nonpersisting controls was more deviant.

Table LXII shows the standard deviations on pretest data for the persisting controls and nonpersisting controls. There was one significant *F* ratio: NDS (Number of Deviant Signs Score).

Table LXIII shows the difference between the means for total persisting experimentals and controls and total nonpersisting experimentals and controls. There were seven significant differences: Row V (Variation in scores for all rows), D 5 and D 2 (Distribution Scores), DP (Defensive Positive Scale), PSY (Psychosis Scale), PI (Personality Integration Scale), and NDS (Number of Deviant Signs Score). There were six very significant differences: SC (Self Criticism Score), Total C (Total Conflict), Column B (Moral-Ethical Self), Total V (Total variability on the Scale), Column V (amount of variability within columns), and PD (Personality Disorder Scale). These data suggest that the persisting experimentals and controls had more healthy self-concepts to assist them in coping with the stresses of college adjustment. Nonpersisting experimentals and controls appear less sure of themselves having more D 2 and D 4 scores, score significantly higher on self criticism, exhibit more conflict with regard to their self-concepts, and are more variable in their answers.

TABLE LXII

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

	Standard Deviation			
Scale	Persisting	Nonpersisting	F Ratio	P
T/F	0.25	0.22	1.34	.344
SC	6.44	5.81	1.23	.389
Net C	8.02	13.15	2.69	.092
Total C	8.61	13.25	2.37	.122
Total P	25.85	28.05	1.18	.411
Row 1	7.31	6.93	1.11	.441
Row 2	13.11	13.87	1.12	.439
Row 3	8.00	11.68	2.14	.152
Col A	6.48	6.69	1.07	.465
Col B	7.02	6.85	1.05	.473
Col C	5.77	5.66	1.04	.479
Col D	6.60	10.72	2.64	.096
Col E	8.40	8.95	1.14	.431
Total V	12.38	13.00	1.10	.447
Col V	8.14	9.45	1.35	.340
Row V	5.00	5.44	1.18	.408
D Score	24.75	24.40	1.03	.485
D 5	9.26	10.42	1.26	.373
D 4	7.21	7.60	1.11	.443
D 3	11.15	9.18	1.48	.297
D 2	7.01	7.74	1.22	.392
D 1	7.02	10.04	2.04	.166
DP	7.66	10.71	1.96	.181
GM	6.91	7.55	1.19	.404
PSY	5.94	9.01	2.30	.130
PD	8.81	11.96	1.84	.203
N	8.56	11.65	1.85	.201
PI	3.87	3.14	1.52	.283
NDS	8.62	18.64	4.68*	.022

* $P < .05$
** $P < .01$

TABLE LXIII

MEAN SCORES ON TENNESSEE SELF CONCEPT SCALE FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Persisters	Nonpersisters			
T/F	1.1	1.2	-0.1	-0.80	.564
SC	34.7	41.5	-6.8**	-3.57	.001
Net C	-2.1	2.5	-0.4	-1.15	.256
Total C	28.0	41.2	-13.2**	-4.26	.000
Total P	345.9	331.6	14.3	1.29	.201
Row 1	125.8	125.9	-0.1	-0.02	.979
Row 2	107.6	98.3	9.3	1.80	.075
Row 3	112.4	107.4	5.0	1.28	.205
Col A	69.5	72.1	-2.6	-0.89	.617
Col B	70.8	61.2	9.6**	3.22	.003
Col C	66.8	62.8	4.0	1.92	.058
Col D	69.6	67.2	2.4	0.77	.551
Col E	69.1	68.4	0.7	0.25	.797
Total V	44.5	56.5	-12.0**	-3.00	.005
Col V	26.3	34.4	-8.1**	-2.72	.009
Row V	18.2	22.1	-3.9*	-1.97	.052
D Score	114.7	127.7	-13.0	-1.57	.121
D 5	15.5	24.4	-8.9*	-2.67	.010
D 4	27.6	22.1	5.5	1.78	.079
D 3	18.8	18.2	0.6	0.20	.838
D 2	20.0	13.9	6.1*	2.26	.027
D 1	18.0	21.5	-3.5	-1.05	.300
DP	56.3	48.0	8.3*	2.42	.019
GM	96.3	95.4	0.9	0.28	.780
PSY	49.7	44.4	5.3*	2.58	.013
PD	76.2	63.4	12.8**	3.20	.003
N	83.7	80.2	3.5	1.00	.324
PI	11.0	8.1	2.9*	2.43	.018
NDS	11.6	22.8	-11.2*	-2.63	.011

* $p < .05$
** $p < .01$

Table LXIV shows the standard deviations for the persisting experimentals and controls and the nonpersisting experimentals and controls. There was one very significant *F* ratio: NDS (Number of Deviant Signs Score).

In analyzing the data from Tables LV through LXIV, the most important predictors on the TSCS for persisting in college are: self criticism (SC), total conflict (Total C), moral-ethical self (Column B), and personality disorder (PD). The overall comparison indicates that nonpersisting students: (1) have poor psychological defense; (2) are more confused and conflicted in their self-perceptions; (3) have lower self-esteem, particularly in terms of self-satisfaction, moral-ethical self, and personal self; (4) have more variable or inconsistent self-concept; (5) have more defense, uncertain self-image, with more D 5 responses, and fewer D 4 and D 2 scores; (6) show more deviant or maladjusted tendencies; and (7) have low personality integration scores indicating less tolerance for frustration and stress or less general personality strength.

Another area of significance was the difference in the number of nonpersisting experimentals and controls. Data received from the colleges the students attended indicate that 14.8% (4 out of 27) of the experimental group dropped out of college prior to the second posttest assessment, while during the same period of time 50% (9 out of 18) of the control group dropped out of college prior to the second posttest assessment. A *t* test for significance of the differences between proportions yielded a *t* of 2.58 which was significant at the .02 confidence level. This difference first suggested that the preparatory training program which the experimental group attended was responsible for this difference. However, the data gathered from the TSCS and presented in

TABLE LXIV

STANDARD DEVIATIONS ON TENNESSEE SELF CONCEPT SCALE FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Persisters	Nonpersisters		
T/F	0.26	0.25	1.07	.471
SC	5.73	5.75	1.01	.466
Net C	11.54	13.68	1.41	.216
Total C	8.54	11.28	1.74	.105
Total P	35.56	27.83	1.63	.185
Row 1	10.23	9.19	1.24	.358
Row 2	16.78	12.52	1.80	.141
Row 3	11.70	12.49	1.14	.366
Col A	8.39	9.49	1.28	.278
Col B	9.75	7.16	1.85	.128
Col C	6.80	5.46	1.55	.213
Col D	9.24	9.40	1.04	.444
Col E	9.26	7.78	1.42	.266
Total V	12.37	11.30	1.20	.383
Col V	8.86	9.40	1.13	.375
Row V	6.12	5.50	1.24	.358
D Score	26.01	22.92	1.29	.330
D 5	10.43	9.08	1.32	.312
D 4	9.15	10.35	1.28	.279
D 3	9.53	11.35	1.42	.209
D 2	8.12	8.45	1.08	.407
D 1	9.81	10.56	1.16	.353
DP	10.42	10.28	1.03	.495
GM	9.93	8.46	1.38	.284
PSY	5.66	7.64	1.82	.088
PD	12.58	10.96	1.32	.314
N	9.88	11.98	1.47	.188
PI	3.94	2.99	1.74	.154
NDS	10.38	17.96	3.00**	.007

* $P < .05$
** $P < .01$

the above tables also indicated that initial self-concept had some bearing on the dropout rate. The four nonpersisting experimentals presented a very different profile from the 23 students who persisted through the college year. When comparing the differences between persisting controls and nonpersisting controls, the same general pattern was evident. These data indicate that the self-concept is a very significant factor in predicting success during the freshman year in college.

The second step in the testing of null hypothesis 4 was the comparison of scores made on the subscales of a semantic differential by the persisting experimentals and the persisting controls at the beginning of the training program (pretest data already shown in Tables XIX and XX).

Tables LXV through LXXIV present the means and standard deviations for making comparisons on pretest data between the 32 students who persisted and the 13 students who did not persist through the school year.

Table LXV shows the differences between the means for the nonpersisting experimentals and controls on pretest data. There were no significant differences.

Table LXVI shows the standard deviations on pretest data for nonpersisting experimentals and controls. There were no significant *F* ratios.

Table LXVII shows the differences between the means for total experimentals and controls on pretest data. There were no significant differences.

Table LXVIII shows the standard deviations on pretest data for total experimentals and controls. There were no significant *F* ratios.

Table LXIX shows the differences between the means for persisting experimentals and nonpersisting experimentals on pretest data. There

TABLE LXV

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR NONPERSISTING EXPERIMENTALS AND CONTROLS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
Activity	23.5	19.8	3.7	1.14	.277
Potency	-0.5	7.6	-8.1	-1.43	.179
Evaluative	57.3	79.4	-22.1	-1.82	.093

* $P < .05$
** $P < .01$

TABLE LXVI

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR NONPERSISTING EXPERIMENTALS AND CONTROLS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimental	Control		
Activity	3.87	5.89	2.31	.262
Potency	9.61	9.32	1.06	.418
Evaluative	29.92	15.12	3.92	.054

* $p < .05$
** $p < .01$

TABLE LXVII

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR TOTAL EXPERIMENTAL AND TOTAL CONTROL GROUPS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimental	Control			
Activity	24.4	22.5	1.9	0.70	.508
Potency	10.2	12.6	-2.4	-0.64	.531
Evaluative	83.5	80.2	3.3	0.47	.648

* $p < .05$
** $p < .01$

TABLE LXVIII

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR TOTAL EXPERIMENTAL AND TOTAL CONTROL GROUPS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimental	Control		
Activity	9.47	8.46	1.25	.319
Potency	12.19	11.58	1.11	.422
Evaluative	25.23	19.74	1.63	.148

* P < .05
** P < .01

TABLE LXIX

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Persisting	Nonpersisting			
Activity	24.6	23.5	1.1	0.21	.828
Potency	12.1	-0.5	12.6*	2.02	.052
Evaluative	88.1	57.3	30.8*	2.47	.020

* P < .05
** P < .01

were two significant differences: potency and evaluative dimensions. These data indicate that the students who persisted through the school year saw themselves and their college environment as being more potent and were more positive in their evaluation of themselves and their college environment. These data support the data shown in Table LIX indicating a basic difference in concept formation between persisting and nonpersisting students.

Table LXX shows the standard deviations on pretest data for persisting experimentals and nonpersisting experimentals. There were no significant *F* ratios.

Table LXXI shows the differences between the means for persisting controls and nonpersisting controls on pretest data. There were no significant differences.

Table LXXII shows the standard deviations on pretest data for persisting controls and nonpersisting controls. There were no significant *F* ratios.

Table LXXIII shows the differences between the means for persisting experimentals and controls and nonpersisting experimentals and controls. There was one significant difference: potency dimension. These data indicate that persisting students, whether they have or have not participated in a precollege training program, see themselves and their college environment as being more potent than do nonpersisting students. These data further support the data shown in Table LXIII.

Table LXXIV shows the standard deviations for the persisting experimentals and controls and the nonpersisting experimentals and controls. There was one significant *F* ratio: activity, indicating that persisting students show less variance in their answers than do nonpersisting students.

TABLE LXX

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

	Standard Deviation			
Scale	Persisting	Nonpersisting	F Ratio	P
Activity	10.18	3.87	6.91	.069
Potency	11.76	9.61	1.50	.416
Evaluative	21.98	29.92	1.85	.166

* $P < .05$
** $P < .01$

TABLE LXXI

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

	Mean Score				
Scale	Persisting	Nonpersisting	Difference	t Value	P
Activity	25.2	19.8	5.4	1.40	.177
Potency	17.6	7.6	10.0	1.98	.062
Evaluative	81.0	79.4	1.6	0.16	.867

* $P < .05$
** $P < .01$

TABLE LXXII

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

	Standard Deviation			
Scale	Persisting	Nonpersisting	F Ratio	P
Activity	10.03	5.89	2.90	.077
Potency	11.91	9.32	1.63	.251
Evaluative	24.45	15.12	2.62	.098

* $P < .05$
** $P < .01$

TABLE LXXIII

MEAN SCORES ON SEMANTIC DIFFERENTIAL FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Persisters	Nonpersisters			
Activity	24.8	20.9	3.9	1.31	.195
Potency	13.6	5.1	8.5*	2.29	.025
Evaluative	86.1	72.6	13.5	1.83	.071

* P < .05
** P < .01

TABLE LXXIV

STANDARD DEVIATIONS ON SEMANTIC DIFFERENTIAL FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Persisters	Nonpersisters		
Activity	9.98	5.48	3.31*	.016
Potency	11.88	9.79	1.47	.242
Evaluative	22.53	22.13	1.04	.499

* P < .05
** P < .01

The data shown on Tables LXV through LXXIV suggest that a semantic differential containing certain relevant concepts is a valid instrument for differentiating between persisting and nonpersisting students and that it can also be used to predict types of attitudes which will increase a student's chances for successful completion of the freshman year in college. The data in these tables further support the data gethered from the TSCS as shown in Tables LV through LXIV.

The third step in the testing of null hypothesis 4 was the comparison of scores made on the subscales of the IPAT Anxiety Scale Questionnaire by the persisting experimentals and the persisting controls at the beginning of the training program (pretest data already shown in Tables XXXVII and XXXVIII).

Tables LXXV through LXXXIV present the means and standard deviations for making comparisons on pretest data between the 32 students who persisted and the 13 students who did not persist through the school year.

Table LXXV shows the differences between the means for the nonpersisting experimentals and nonpersisting controls on pretest data. There were no significant differences.

Table LXXVI shows the standard deviations on pretest data for nonpersisting experimentals and nonpersisting controls. There were no significant F ratios.

Table LXXVII shows the differences between the means for the total experimentals and total controls on pretest data. There was one significant difference: Q_4 (Frustrative Tension or Id Pressure). These data indicate that the controls as a group felt greater anxiety and tension than did the experimentals as a group. These data also support the data in Tables LVII and LXVII indicating that some basic differences did exist between the two groups at the beginning of this study.

TABLE LXXV

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR NONPERSISTING EXPERIMENTALS AND NONPERSISTING CONTROLS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Experimentals	Controls			
Q_3	4.8	6.2	-1.4	-0.93	.625
C	4.5	4.1	0.4	0.36	.726
L	4.3	2.8	1.5	1.15	.276
O	10.3	9.1	1.2	0.66	.531
Q_4	10.0	9.6	0.4	0.18	.854
Total	33.8	31.8	2.0	0.33	.748

* $P < .05$
** $P < .01$

TABLE LXXVI

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR NONPERSISTING EXPERIMENTALS AND NONPERSISTING CONTROLS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimentals	Controls		
Q_3	2.75	2.59	1.13	.393
C	1.73	1.83	1.12	.487
L	2.36	2.05	1.33	.331
O	3.59	2.57	1.95	.199
Q_4	5.35	3.50	2.33	.150
Total	13.48	8.44	2.55	.129

* $P < .05$
** $P < .01$

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TABLE LXXVII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR TOTAL EXPERIMENTAL AND TOTAL CONTROL GROUPS ON PRETEST DATA

Scale	Mean Score Experimental	Control	Difference	t Value	P
Q_3	5.4	5.6	-0.2	-0.14	.885
C	3.3	3.6	-0.3	-0.46	.652
L	3.0	3.3	-0.3	-0.49	.629
O	9.6	9.7	-0.1	-0.11	.910
Q_4	7.3	9.7	-2.4*	-2.03	.046
Total	28.7	31.9	-3.2	-1.03	.309

* $P < .05$
** $P < .01$

Table LXXVIII shows the standard deviations on pretest data for the total experimentals and total controls. There were no significant F ratios.

Table LXXIX shows the differences between the means on pretest data for persisting experimentals and nonpersisting experimentals. There were no significant differences.

Table LXXX shows the standard deviations on pretest data for persisting experimentals and nonpersisting experimentals. There were no significant F ratios.

Table LXXXI shows the differences between the means on pretest data for persisting controls and nonpersisting controls. There were no significant differences.

Table LXXXII shows the standard deviations on pretest data for persisting controls and nonpersisting controls. There were no significant F ratios.

Table LXXXIII shows the differences between the means for total persisting experimentals and controls and total nonpersisting experimentals and controls. There were no significant differences.

Table LXXXIV shows the standard deviations for the persisting experimentals and controls and nonpersisting experimentals and controls. There were no significant F ratios.

The data in Tables LXXV through LXXXIV show only one significant difference, as measured by the IPAT Anxiety Scale Questionnaire. This lack of significance lends support to the notion previously stated that this instrument did not effectively discriminate between experimentals and controls, nor was it a valid predictor of persisting or nonpersisting students in the freshman year of college. However, taking into consideration

TABLE LXXVIII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR TOTAL EXPERIMENTAL AND TOTAL CONTROL GROUPS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Experimental	Control		
Q_3	2.82	2.28	1.53	.184
C	1.86	2.15	1.33	.249
L	2.07	1.81	1.30	.293
O	3.42	3.24	1.12	.413
Q_4	4.25	3.39	1.57	.169
Total	11.26	8.52	1.75	.117

* $P < .05$
** $P < .01$

TABLE LXXIX

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

Scale	Mean Score		Difference	t Value	P
	Persisting	Nonpersisting			
Q_3	5.6	4.8	0.8	0.53	.609
C	3.1	4.5	-1.4	-1.38	.176
L	2.8	4.3	-1.5	-1.29	.207
O	9.4	10.3	-0.9	-0.43	.672
Q_4	6.8	10.0	-3.2	-1.40	.170
Total	27.8	33.8	-6.0	-0.98	.661

* $P < .05$
** $P < .01$

TABLE LXXX

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR PERSISTING EXPERIMENTALS AND NONPERSISTING EXPERIMENTALS ON PRETEST DATA

Scale	Standard Deviation		F Ratio	P
	Persisting	Nonpersisting		
Q_3	2.87	2.75	1.09	.450
C	1.84	1.73	1.13	.467
L	1.99	2.37	1.41	.267
O	3.46	3.59	1.08	.380
Q_4	3.98	5.35	1.81	.175
Total	10.94	13.48	1.52	.237

* $P < .05$
** $P < .01$

TABLE LXXXI

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

	Mean Score				
Scale	Persisting	Nonpersisting	Difference	t Value	P
Q_3	4.9	6.2	-1.3	-1.26	.224
C	3.1	4.1	-1.0	-0.99	.661
L	3.9	2.8	1.1	1.33	.201
O	10.2	9.1	1.1	0.72	.511
Q_4	9.9	9.6	0.3	0.20	.836
Total	32.0	31.8	0.2	0.05	.957

* $P < .05$
** $P < .01$

TABLE LXXXII

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR PERSISTING CONTROLS AND NONPERSISTING CONTROLS ON PRETEST DATA

	Standard Deviation			
Scale	Persisting	Nonpersisting	F Ratio	P
Q_3	1.83	2.59	1.99	.175
C	2.42	1.83	1.74	.224
L	1.45	2.05	1.99	.175
O	3.87	2.57	2.26	.135
Q_4	3.48	3.50	1.01	.493
Total	9.11	8.44	1.17	.417

* $P < .05$
** $P < .01$

TABLE LXXXIII

MEAN SCORES ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

	Mean Score				
Scale	Persisting	Nonpersisting	Difference	t Value	P
Q_3	5.4	5.8	-0.4	-0.46	.653
C	3.1	4.2	-1.1	-1.75	.083
L	3.1	3.2	-0.1	-0.16	.866
O	9.7	9.5	0.2	0.18	.855
Q_4	7.7	9.7	-2.0	-1.52	.132
Total	29.0	32.4	-3.4	-1.01	.319

* $P < .05$
** $P < .01$

TABLE LXXXIV

STANDARD DEVIATIONS ON IPAT ANXIETY SCALE QUESTIONNAIRE FOR TOTAL PERSISTERS AND TOTAL NONPERSISTERS ON PRETEST DATA

	Standard Deviation			
Scale	Persisting	Nonpersisting	F Ratio	P
Q_3	2.61	2.62	1.01	.468
C	1.98	1.74	1.30	.326
L	1.90	2.17	1.30	.265
O	3.53	2.82	1.57	.204
Q_4	4.04	3.92	1.06	.479
Total	10.49	9.68	1.17	.400

* $P < .05$
** $P < .01$

the data shown in Tables LV through LXXIV, which do indicate significant differences in persisting and nonpersisting students, null hypothesis 4 could not be accepted.

Summary

This chapter has presented descriptive data for 45 students who were asked to participate in the evaluation of a college preparatory program. The original experimental group consisted of 27 students and the original control group consisted of 18 students. These groups were assessed in terms of 14 proposed differences (Figures 1 and 2, p. 38) using three instruments: Tennessee Self Concept Scale, a semantic differential, and the IPAT Anxiety Scale Questionnaire. A pretest assessment was made between June 1 and June 15, 1968. The first posttest assessment was made between October 1 and October 15, 1968. The second posttest assessment was made between March 1 and March 15, 1969. The data gathered from this pretest, posttest, and second posttest design, as reported in Tables I through LXXXIV, indicate significant differences in self-concept for the experimentals as well as the controls. The most significant differences were between the total persisting students and the total nonpersisting students on pretest data. There were 13 significant differences on the TSCS, as reported on Table LXIII. The data also show that, while five significant differences occurred between pretest and first and second posttests for the controls on the TSCS (Tables XIII through XVI), there were 15 significant differences at the same time with the experimentals, as reported on Tables VII through X, with these significant changes being more pronounced in the period of time between the first and second posttests. The direction of this change was toward a more positive healthy self-concept.

The semantic differential scores indicate the same type of positive directional trend for the experimental group (Tables XXIII and XXIX). During the same period of time the controls developed a negative trend in potency and activity between their pretest and first and second post-tests (Tables XXXIII, XXXIV, and XXXV). These data indicate that the self-concept is a valid predictor of success in college during the first year and that students who are enrolled in and successfully complete a college preparatory program are most likely to enhance their own self-concepts while in the freshman year in college.

While there were some significant differences of anxiety as measured by the IPAT Anxiety Scale Questionnaire, they were limited in number (three t tests: Tables XXXVII, XLI, and LXXVII; and 2 F ratios: Tables L and LIV). This instrument failed to satisfactorily discriminate between experimentals and controls. It also failed as a predictor of persisting and nonpersisting students in the freshman year in college.

In view of the data shown null hypotheses 1 (Tables I through VI), 2 (Tables XIX through XXIV), and 4 (Tables LV through LXXXIV) could not be accepted; and null hypothesis 3 (Tables XXXVII through XLII) was accepted.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY

Does attending and completing a college preparatory program for the visually handicapped enhance the chances for successful completion of the freshman year in college? Will a blind student who has participated in such a class be more successful in making the transition from high school senior to college freshman? These are some of the questions toward which this investigation has been directed (Chapter I).

A review of the literature has shown that there have been few attempts to deal with the precollege orientation needs of the physically handicapped. While these orientation programs have been limited in number, they have done an adequate job of filling the gap between high school and college. The articles and reports cited in Chapter II lend support to the need for the continuing development of college orientation programs for handicapped and nonhandicapped alike.

The subjects for this investigation were 45 high school graduates sponsored by Vocational Rehabilitation Services for the Blind who enrolled in college for the first time in September, 1968. They were divided into two groups depending on whether or not they had attended the college preparatory program of the Arkansas Enterprises for the Blind during the summer of 1968. The 18 students who had not attended the precollege orientation program were the control group, and the 27 students who attended the precollege orientation program were the experimental group.

In order to examine the rate of attrition the students were also divided with regard to persistence or nonpersistence in the freshman year (nonpersisting controls, N=9; nonpersisting experimentals, N=4; persisting controls, N=9; and persisting experimentals, N=23).

Measurements of self-concept and anxiety were obtained for each group by administering the Tennessee Self Concept Scale (TSCS), IPAT Anxiety Scale Questionnaire, and a semantic differential on a pretest, posttest, and second posttest basis. Differences between the four groups on each of the variables and on each test administration were used to determine if there were statistically significant differences between those students who attended the college preparation program of the Arkansas Enterprises for the Blind and those students who did not attend any type of precollege orientation program, and if there were significant differences between students who completed the freshman year of college and those who withdrew before doing so (Chapter IV).

II. CONCLUSIONS

These procedures were carried out in order to achieve the purpose of the investigation: "An Analysis of the Effectiveness of a College Preparatory Program for the Visually Impaired." Detailed conclusions based on the results of the variables used have appeared at the end of the discussion of the data gathered on each variable (Chapter IV). These conclusions are recapitulated below.

Conclusions from the Tennessee Self Concept Scale

Hypothesis 1. There is no significant difference with respect to self-concept as measured by the Tennessee Self Concept Scale, between students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

T tests of the difference between groups on pretest, posttest, and second posttest of the 29 subscales of this variable yielded statistically significant differences on 22 of the 29 scales on one or more of these tests. Analysis of these data has led to the following conclusions concerning Null Hypothesis 1.

This hypothesis was not accepted. The self-concept, as measured by the TSCS, was shown to be different on all three test administrations between the experimental and control groups. These differences were most pronounced when comparison was made between the two groups on second posttest assessment. The experimental group was shown to possess a more normal self-concept profile on all scales, while the control group showed little, if any, change between their pretest and second posttest assessments. The changes noted were generally in a negative direction. These data indicate that the self-concept is a valid predictor of success in college and that attendance at, and completion of, a college preparatory program does enhance the chances for this success.

Conclusions from a semantic differential

Hypothesis 2. There is no significant difference, with respect to attitude toward certain personal concepts as measured by a semantic differential, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

T tests of the difference between groups on pretest, posttest and second posttest assessment of the three subscales yielded five significant differences. There were also two significant F ratios. Analysis of these data have led to the following conclusions concerning the null hypothesis.

This hypothesis was not accepted. Attitude toward certain personal concepts, as measured by a semantic differential devised especially for visually impaired high school graduates, was found to differ significantly, not only between total experimentals and total controls, but also within each group when compared with themselves at a different point in time (Table XXIX experimental group, and Tables XXXIII & XXXV control group). The activity and evaluative dimensions showed the greatest differences.

The differences were most pronounced in the second posttest assessment between persisting experimentals and persisting controls. These differences showed a trend toward greater activity and more positive evaluation of themselves and their college environment for the experimental group, and a less positive directional trend in evaluative and potency dimensions for the control group.

These data are in agreement with the results of the Tennessee Self Concept Scale, and lend further support to the notion that a precollege orientation program, especially designed for visually impaired students, tends to aid these students in coping with the situations they will encounter during the freshman year in college. These data also suggest that the nine personal concepts are effective as discriminators (between those students who might or might not be expected to persist through the freshman year) since there were several significant differences when total persisting students were compared with total nonpersisting students on pretest data only.

Conclusions from IPAT Anxiety Scale Questionnaire

Hypothesis 3. There is no significant difference, with respect to level of anxiety as measured by the IPAT Anxiety Scale Questionnaire, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

T tests of the difference between groups on pretest, posttest, and second posttest assessments of the five subscales yielded only three differences: pretest assessment between persisting experimentals and persisting controls, pretest assessment between total experimentals and total controls, and second posttest assessment between persisting experimentals and persisting controls. These three differences were barely significant at the .05 level.

This hypothesis was accepted. While the transition from high school senior to college freshman is seen by the student and those who work with him as being fraught with anxiety provoking stimuli, the variable used in this study failed to discriminate effectively between experimental and control groups, or between persisting and nonpersisting students. Of the 48 possible differences, the IPAT showed minimum significance in only three instances.

This lack of discrimination could be explained in two ways: (1) all students anticipating college attendance may be anxious without regard to whether or not they have attended an orientation program and will answer questions on a self-analysis questionnaire similarly; (2) when a sighted person reads the items to a nonsighted student, he may tend to give the expected responses rather than expressing his real feelings. This is noted in Chapter I as a possible limitation to the interpretation of the data in this study. In any case the IPAT failed as a discriminator or predictor of college success in this study.

Conclusions from attrition data

Hypothesis 4. There is no significant difference, with respect to attrition during the freshman year as reported by the colleges they attend, between blind students who have and have not gone through the college preparatory program of the Arkansas Enterprises for the Blind and have then gone to college.

T test scores based on number of persisting and nonpersisting students in both experimental and control groups were significant at the .02 level. Analysis of the empirical data along with certain aspects of the TSCS and Semantic Differential scales has led to the following conclusions concerning the null hypothesis.

This hypothesis was not accepted. Data from the colleges which these 45 students attended reveal that 50% (9 of the 18) in the control group dropped out of college prior to the second posttest administration, while only 14.8% (4 of the 27) in the experimental group dropped out of college prior to the second posttest administration. As stated above, when a *t* test of the difference was applied it was found to be significant at the .02 confidence level. Other data from the TSCS and Semantic Differential indicate that the self-concept of the total persisting students, when compared with the total nonpersisting students, contained a number of significant differences. These data also indicated that when nonpersisting experimentals are compared with persisting experimentals these same types of differences appeared. The same types of profiles appeared for the persisting versus nonpersisting controls on pretest data. When total experimentals were compared with total controls the differences were even greater. This analysis suggests that while there appears to be a definite type of self-concept which enhances a student's chances for successful completion of the freshman year, the value of a precollege orientation program is greater for those borderline individuals who need support in their first attempt at college.

Over-all conclusions

Along with the above specific conclusions the data also generated several broad general conclusions which are discussed below.

The self-concept is a significant variable in discriminating between visually impaired students who attend and do not attend a college preparatory program. The self-concept is also to some extent a predictor of those students who are likely to persist through the freshman year in college. The knowledge which this information provides can be used by both high school and vocational rehabilitation counselors to better prepare their clients for college or other vocational goals more in keeping with the client's view of himself in cases where the self-concept is such that college does not appear to be a feasible goal.

The semantic differential technique was used with concepts assumed to be relevant for this population. The findings from these data were significant as a discriminator between experimentals and controls as well as between persisters and nonpersisters. This suggests that a semantic differential created for any given population should also be a valuable data gathering instrument for use in counseling of college bound students from that population.

Anxiety, present both in high school seniors contemplating college and in college freshmen entering college for the first time, was not a significant variable in this study either as a discriminator or as a predictor.

Attrition was found to be greatest among the control group. Self-concept and attendance at a college preparatory program were seen as variables which were related to the rate of attrition. Significant differences in self-concept were greatest when total persisting and non-persisting students were compared without regard to whether they had originally belonged to the experimental or control group.

Limitations in interpretation

The conclusions must be interpreted within a framework of limitations growing out of this research design, some of which are summarized as follows:

1. The limited size of the sample population (45 students, 27 in the experimental group and 18 in the control group) raises some question as to its representativeness of visually impaired students.
2. The students were drawn from the southeastern and southwestern sections of the United States. This raises the question of the representativeness of students from these areas with regard to visually impaired college bound students in the nation as a whole.
3. The testing instruments used were standardized on a sighted population who were able to read and respond for themselves to

each item, while the population in this study had to rely on someone else to read and record their responses. While this is not seen as a limiting factor in interpreting the results for other visually impaired students, it is seen as limiting the transferability of the conclusions to other college bound populations.

4. While the writer was present during the pretest assessment of the experimental group he was unable to participate directly in either the pretest assessment of the control group or the posttest and second posttest assessments of either experimental or control groups. This testing was entrusted to the counseling departments of the high schools for the pretest assessment of the control group and the counseling departments of the colleges for the posttest and second posttest of both groups. This is seen as limiting the conclusions which may be drawn from this data.

III. SUGGESTIONS FOR FURTHER RESEARCH

In the course of this investigation a number of areas for possible research have presented themselves for this writer's consideration.

1. Research which would broaden the variables used in this study along the following lines:
    a) Use of a larger population, which would permit the control and experimental groups to be more nearly equal in number, and would allow the use of genuinely random procedures in selecting the participants.

  b) Use of a broader geographical area so that the population would be more typical of visually impaired college bound students in the nation as a whole.
  c) Longitudinal study in which the persisting students in both experimental and control groups are followed through more than their freshman year in college with appropriate evaluation periods to determine the length of time the college preparatory program exerted maximum effects on the experimental population; and also whether, over an extended period of time, the differences observed in this study between control and experimental groups, tended to diminish or disappear.
  d) Replication of the same research design under a different (e.g., Syracuse University) college orientation program for the purpose of placing more confidence in the conclusions drawn from the data in this study.
2. Research which would explore in greater depth some of the areas which were only briefly touched on in this study.
  a) The self-concept as a predictor of success in college.
  b) Probable outcomes of attempts at altering the self-concept so that it would enhance a student's chances for success during the freshman year.
  c) Evaluation of particular cases of nonpersisting students with regard to self-concept change, immediately after leaving college.
  d) In-depth investigation of the nature and role anxiety plays in both persisting and nonpersisting students with emphasis

on how each group copes with anxiety.

e) Refinement of the Semantic Differential so as to gain a more complete understanding of the attitudes of visually impaired toward themselves and those students and professors with whom they come into contact with emphasis on the differences between the attitudes of those who persist and those who do not persist during the freshman year in college.

f) Investigation of the relationship between self-concept, anxiety, and rate of attrition during the freshman year in college.

3. Research which would help clarify some of the important aspects of a college preparatory program for visually impaired with emphasis on types of courses, greatest number of students who could receive maximum benefit at any one time from such a course, length of training program as to minimum time involved in which maximum benefits could be derived, and costs to the student or the agency sponsoring him.

It is evident that with the national emphasis on obtaining an adequate education, more and more high school graduates will be attending college. If our institutions of higher education are to provide the best possible education for these students, an adequate college orientation program is needed, both for handicapped and nonhandicapped students.

The college preparatory program of the Arkansas Enterprises for the Blind has proven to be such a program, providing visually impaired high school graduates the opportunity to engage in practical experiences which will effectively bridge the gap between high school senior and college freshman. These experiences provide the perspective college student opportunities to gain valuable knowledge concerning the solution to many of the academic, social, and personal problems he will face as a blind student on a college campus. Programs of this nature increase the ability of a visually impaired person to compete on an equal level with other college students.

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APPENDICES

APPENDIX A

COLLEGES AND UNIVERSITIES ATTENDED BY MEMBERS OF THE EXPERIMENTAL AND CONTROL GROUPS

Jacksonville State University
Jacksonville, Alabama

University of South Alabama
Mobile, Alabama

Cochise College
Douglas, Arizona

Northern Arizona University
Flagstaff, Arizona

Henderson State College
Arkadelphia, Arkansas

College of the Ozarks
Clarksville, Arkansas

Hendrix College
Conway, Arkansas

State College of Arkansas
Conway, Arkansas

Arkansas State University
State University, Arkansas

Valdosta State College
Valdosta, Georgia

University of Kentucky
Lexington, Kentucky

Jefferson Community College
University of Kentucky
Louisville, Kentucky

Southern University
Baton Rouge, Louisiana

Southeastern Louisiana College
Hammond, Louisiana

Northeast Louisiana State College
Monroe, Louisiana

Loyola University
New Orleans, Louisiana

Louisiana Polytechnic Institute
Ruston, Louisiana

Nicholls State College
Thibodaux, Louisiana

Copiah-Lincoln Junior College
Wesson, Mississippi

East Central State College
Ada, Oklahoma

King College
Bristol, Tennessee

East Tennessee State University
Johnson City, Tennessee

The University of Tennessee at Martin
Martin, Tennessee

Maryville College
Maryville, Tennessee

Memphis State University
Memphis, Tennessee

The University of Texas at Austin
Austin, Texas

Sam Houston State College
Huntsville, Texas

Texas Technological College
Lubbock, Texas

Angelo State College
San Angelo, Texas

Texarkana College
Texarkana, Texas

Baylor University
Waco, Texas

Brigham Young University
Provo, Utah

Northern Virginia Community College
Bailey's Crossroads, Virginia

APPENDIX B

EVALUATION SHEETS USED FOR COLLEGE PREPARATORY PROGRAM OF ARKANSAS ENTERPRISES FOR THE BLIND

MOBILITY & ORIENTATION

INITIAL EVALUATION

Based on observation & evaluation after a period of: 1 wk.___2wks.___

TRAINEE_______________________AGE____STATE_________

		Uncertain	No	Yes
1.	PARTIAL VISION (Use item 2 if TOTALLY BLIND OR LESS THAN TRAVELING VISION			
A.	Has he had any previous training?	___	___	___
B.	Is light perception or better present?	___	___	___
C.	If field of vision limited, circle one. UP DOWN RT. LFT.	___	___	___
D.	Are step-downs, step-offs, curbs, and holes seen?	___	___	___
E.	At what distance can an auto license plate be read?	___	___	___
F.	Can he see WHITE on RED stop signs at 50 feet?	___	___	___
G.	Can BLACK on YELLOW, YIELD, or CAUTION signs be read at 50 feet?	___	___	___
H.	Can moving vehicles be seen one block distant?	___	___	___
I.	Can one line of moving cars be counted? Colors identified?	___	___	___
J.	Can STOP, GO, WALK, DON'T WALK lights be read?	___	___	___
K.	Can windows or details of a house be seen from across the street?	___	___	___
L.	Can he visually walk straight along curbs, graveled edges, sidewalks, and cross neighborhood streets?	___	___	___
M.	Can inside furniture, pictures, chairs, etc., be seen?	___	___	___
N.	When looking intently at objects, traffic signals, or print, is there a time limit on useful sight?	___	___	___
O.	At night is there more loss of sight, or "night blindness?"	___	___	___
P.	Is there sun "blindness" or sight loss in the sun?	___	___	___
Q.	Is loss of sight progressive?	___	___	___
R.	Is he fearful in metropolitan traveling?	___	___	___
S.	Does he resist a cane and mobility training?	___	___	___

	Uncertain	No	Yes
II. TOTALLY BLIND or LESS THAN TRAVELING VISION			
A. Does trainee claim to have traveled alone extensively?			
B. Does he claim considerable previous training? Number of weeks or months ____________ Where ____________			
C. Is he extremely fearful; or excessively impulsive?			
D. In your opinion does he try to demonstrate or indicate more sight than he actually has?			
E. Does he use the standard swinging-touching cane method?			
F. Is cane arc and touch satisfactory; hand and arm position?			
G. Is the manner of walking, knee bending, etc., O.K.?			
H. Does he weave, step off curbs, make incorrect turns? (Circle)			
I. Does he use cane correctly on steps, stairways, etc.?			
J. Does he use doorways properly, find handles, etc.?			
K. Does he appear to use traffic and other sound cues well?			
L. Does he appear to have hearing losses or difficulties? Rt. Lft. (Circle one)			
M. Will he need concentrated or extended orientation?			
N. Can he hold properly a guide's arm and follow?			
O. Are indoor methods satisfactory? (Circle which) With cane Without cane			
P. Can he proficiently follow curbs, graveled edges and other shorelines and cross intersections near Center?			
Q. Is he from a rural area and unfamiliar with city travel?			
R. Is resistance to use of a cane indicated?			
S. Is he desirous of training? (List comments)			

III. ANY OTHER HANDICAPS (List) ________________________________

____

RECOMMENDATIONS: No more training Some training Intensive training

____
EVALUATOR

TECHNIQUES OF DAILY LIVING EVALUATION

NAME: ____________________ DATE: ____________

ORIENTATION

The trainee is able to:

1. Find the table and chair ____________
2. Irons and ironing boards ____________
3. Closet ____________
4. Make-up table and distinguish the contents of the various containers ____________
5. Find his way out of the room ____________
6. Does he locate his work? ____________

WORK PERFORMANCE

1. Prompt to schedule ____________
2. Able to comprehend ____________
3. Gives full attention while instructions are being given ____________
4. Able to follow through on instructions ____________
5. When instructor is busy, is he patient? ____________
6. Good coordination ____________
7. Close supervision required ____________
8. Is he able to find and correct errors? ____________
9. Is he systematic in his work? ____________

ATTITUDE

1. Motivated to learn ____________
2. Starts on own initiative and works steadily during the period ____________
3. Is his work tolerance good? ____________
4. Can he learn is close supervision is given? ____________
5. Work well with other trainees ____________

PERSONAL CARE

Men:

1. Keeps hair cut and well groomed ____________
2. Keeps clean shaven ____________
3. Keeps fingernails clean and trimmed ____________
4. Cares for his own toe nails ____________
5. Keeps body clean and free from odor ____________
6. Uses suitable deodorant ____________
7. Maintains a good clean general appearance ____________
8. Requires frequent suggestions to care for his personal needs ____________
9. Wears dark glasses willingly for cosmetic and/or safety purposes ____________
10. Can tie a tie ____________

Women:

1. Keeps hair clean by frequent as necessary shampoos ____________

2. Keeps hair brushed and combed into an easy to care for and attractive style __________
3. Accepts suggestion to have hair cut or trimmed if needed to improve appearance __________
4. Keeps face clean and adequately made-up __________
5. Accepts constructive criticism of facial blemishes and use of cosmetic cover-up or treatment __________
6. Keeps fingernails clean, cut and filed to good size and shape __________
7. Keeps superfluous hair removed __________
8. Cares for own toe nails __________
9. Keeps body clean and free from odor __________
10. Used suitable deodorant __________
11. Wears dark glasses for cosmetic and/or safety purposes willingly __________
12. Foundation garments--need of accepted __________
13. Takes care that under pinnings do not show __________
14. Polishes fingernails with clear polish, colored polish __________

CHARM

1. Total appearance __________
2. Figure--concern for __________
3. Posture
   - a. Walk __________
   - b. Stance __________
   - c. Sitting __________
   - d. Position of feet __________
   - e. Position of hands while seated __________
   - f. Position of head __________
4. Pleasant voice __________
5. Neat and proper make-up __________
6. Personality __________

CARE OF CLOTHES - Men and Women

Laundry

1. Does own __________
2. Lets others do it __________
3. Uses commercial laundry __________
4. Familiar with types of bleaches and use __________

Ironing

1. Is able to fill steam iron __________
2. Is able to operate heat setting control __________
3. Can plug in iron with little difficulty __________
4. Is able to retain basic steps of ironing any particular garment __________
5. Can detect and correct errors __________
6. Can accept constructive criticism __________

Competence in ironing:

- a. Flat pieces--aprons, tea towels, etc. __________
- b. Shirts
  - (1) Short Sleeve __________

(2) Long Sleeve
(3) With a yoke
(4) White dress shirt
c. Pants:
(1) Wash pants
(2) Levis and blue jeans
(3) Slacks, shorts
d. Skirts:
(1) Straight
(2) Gathered
(3) Pleated
e. Blouses:
(1) Sleeveless
(2) Cap sleeve
(3) Short sleeve
(4) Long sleeve
f. Dresses:
(1) Sleeveless
(2) Cap sleeve
(3) Short sleeve
(4) Long sleeve
(5) Sheath
(6) Gathered
(7) Pleated
(8) Ruffles, buttons, round collars,etc.
Can hang clothes on hangers
Can fold shirts and blouses
Sewing:
1. Can thread conventional needle with aid of needle threader
2. Can thread self-threading needle
3. Can sew a two hole button
4. Can sew a four hole button
5. Can sew a shank button
6. Can do plain stitch for seam and other repairs
7. Can do slip-stitching for hem alteration and repair
8. Can use the sewing machine
Care of shoes:
1. Keeps leather shoes polished
2. Keeps suede shoes brushed
3. Keeps canvas shoes washed clean
4. Keeps patina shoes free from soil and marks
5. Keeps white shoes clean
Can tie shoe laces
Clothing selection & coordination:
1. Is able to select clothing appropriate to his individual needs
2. Is able to select clothing appropriate for occasion
a. day wear
b. sport wear
c. evening wear

3. Can coordinate
   a. colors ____________________
   b. patterns of material design with solids ____________________
   c. Knits and weaves ____________________
   d. Jewelry ____________________
      (1) Day
      (2) Evening ____________________
   e. Two piece outfits
      (1) Skirts - blouses ____________________
      (2) Shirts - pants ____________________
      (3) Skirts - sweaters ____________________
      (4) Sweaters - pants ____________________
   f. Accepts use of Braille color tags for determination of pattern as well as color ____________________

REMARKS:

ALPHA COMMUNICATIVE TECHNIQUES EVALUATION

Vocational Objective____________________

HANDWRITING: Write name? Yes___No___Script___Block___Sight___ Touch or Blindfold___ Write script alphabet? Yes___No___Proper Spacing? Yes___No___Acceptable size? Yes___No___Too large___Too small___ Speed: quickly___average___slowly___ Writing aid used: none___ string board___Marx board___screen templet___plastic slate___felt marker___.

COMMENTS:

TELEPHONE USAGE: Dial telephone? Yes___No___quickly___slowly___ Remember number long enough to dial? Yes___No___ Use a pay phone? Yes___ No___ Call information? Yes___No___ Use four-finger method? Yes___No___ Own system? Yes___No___ Place calls through a switchboard? Yes___No___ Understand direct distance dialing? Yes___No___ Understand long distance rates in a pay phone? Yes___No___ Use correct telephone etiquette? Yes___No___ Know telephone receptionist techniques? Yes___No___.

COMMENTS:

TELLING TIME: Tell time? Yes___No___by sight___by touch or blindfold___ quickly___slowly___braille watch___braille clock___braille pocket watch___.

ABILITY TO COUNT CHANGE: Yes___No___ Recognize coins? Yes___No___ by sight___by touch or blindfold___quick & accurate___slow & accurate___ Amounts to $1___$5___$10___$20___Any amount___ Does he have a system of isolating paper money? Yes___No___ Check writing? Yes___No___sight___ raised line check___templet___.

TALKING BOOK MACHINE: Has he listened to talking book instruction record? Yes___No___ Operate the machine? Yes___No___ Does he know where he can order books? Yes___No___ Does he know proper way to store and return books? Yes___No___fasten case___indicate trouble___ Does he use the Center library? Yes___No___.

TAPE RECORDER: Operate a tape recorder? Yes___No___ Name principle controls found on all tape recorders? Yes___No___ Thread take-up reel? Yes___No___ Record and mail a tape letter? Yes___No___ Use splicer? Yes___No___.

ARITHMETIC EVALUATION: Add___ Subtract___ Multiply___ Divide___
on paper___mentally only___braille___cube___slate___abacus___
Remedial help: Spelling? Yes___No___ Grammar? Yes___No___ Reading?
Yes___No___ Method of instruction: sound records___ large type___
regular type___braille___optical aids___.

TYPING EVALUATION & ACHIEVEMENT

Date________________ Name________________

Projected Goal________________ Time recommended________________

EVALUATION:

1. Previous Typing Experience________________
2. Keyboard (Manual typewriter)
   Alphabet________ Numerals________ Characters________
3. Timed Writings
   One Minute: WPM________ Errors________
   Three Minute: WPM________ Errors________
   Five Minute: WPM________ Errors________
4. Mechanics
   Margins________ Indentation________ Footnotes________
   Centering________ Columns________ Bibliography________
   Check Writing________
5. Correspondence
   Friendly Letters: Mailable________ Proficient________
   Business Letters: Mailable________ Proficient________
   Address Envelopes:________
6. Advances Skills
   Electric: WPM________ Errors________
   Dictaphone Usage: Yes________ No________

Remarks:________________

____

____

....

Achievement: Stage I________
StageII________
Stage III________

Termination date________

RECREATION AND SOCIAL SKILLS EVALUATION

Trainee ______________________

	Yes	No	Interested in Learning
1. Do you dance?			
2. Do you swim?			
3. Do you bowl?			
4. Do you play golf?			
5. Do you play miniature golf?			
6. Do you play archery?			
7. Do you water ski?			
8. Do you play shuffle board?			
9. Do you play cards?			
a. Bridge			
b. Canasta			
c. Rook			
d. Poker			
e. Euchre			
f. Hearts			
g. Pitch			
h. Casino			
10. Do you play domino games?			
a. Moon			
b. Forty-Two			
c. Muggins			
11. Do you play Scrabble?			
12. Do you play Checkers?			
13. Do youplay Chess?			
14. Do you play Bingo?			

15. Do you attend:
    a. Movies ______________
    b. Ball Games ______________
    c. Stage Plays ______________
16. Are you interested in music? ____
    a. Instrumental ______________
    b. Small Groups ______________
    c. Ensemble ______________
    d. Solo Vocal ______________
    e. Solo Instrumental ______________
17. Are you interested in amateur radio? ______________
18. Are you interested in fishing? ______________
19. Are you interested in camping? ______________

COMMENTS: ____

____

____

HOME MANAGEMENT

NAME:____________________ DATE:__________

HAS COOKED BEFORE:________SELF ONLY________OTHERS________
Breakfast________Example____________________
Lunch________Example____________________
Dinner________Example____________________

APPLIANCES USED:
- Electric skillet________
- Electric toaster________
- Electric mixer________
- Electric disposal________
- Others________
- Electric range________
- Electric oven________
- Gas range________
- Gas oven________
- Others________

COOKING METHODS USED:
- Frying________
- Baking________
- Boiling________
- Broiling________
- Bar-B-Q________

PROJECTS:
- Wash dishes________
- Dry dishes________
- Set table________
- Grocery shopping________
- Other________

Is trainee on a diet?________ If so, what kind?________
Degree of sight________ Can read Braille________Print________
Follows recipes________ Favorite foods________
Will live independently_____Semi-supervised_____Supervised________
Vocation____________________

DEMONSTRATED IN AREA:	COMMENTS:
Identify sizes of measuring cups	
Identify sizes of measuring spoons	
Can measure liquids accurately	
Can measure dry ingredients	
Can pour liquids	
Can set oven controls	
Can set surface units	
Can set braille timer	
Can use wall can opener	
Can use hand can opener	
Can use disposal	
Can clean range	
Can clean oven	
Can sweep floors	
Fear of heat	

EVALUATION SHEET -- PHYSICAL CONDITIONING

TRAINEE______________________ INSTRUCTOR__________________

Sex: Male_______Female________

Sight: ( ) Total ( ) Partial ( ) Light Perception

Other Handicaps (If any):_______________________________

1. ATTENDANCE:
   Days Absent__________Excused________Unexcused________

2. Is Trainee ever late? ( ) frequently ( ) rarely ( ) never

3. Participation:
   ( ) works all period ( ) part of period ( ) rarely ( ) never

4. Is Trainee motivated? __________yes __________no
   Does Trainee take instruction?_____yes __________no
   Does Trainee require individual instruation_____yes _____no

5. Trainee works on the following machines:
   ___exercycle ________Daily ___treadmill ________Daily
   ___wall weights ________Daily ___rowing machine ________Daily
   ___Isometric Bar ________Daily ___vibrator ________Daily
   ___weights ________Daily

6. Time spend on Calisthenics:__________Daily
   Special Exercise: Describe and give purpose:______________
   ____

7. PHYSICAL CONDITION: Height__________ Weight________
   Weight: ___Over ___Normal ___Under
   Posture: ___Good ___Average ___Poor
   Coordination: ___Good ___Average ___Poor
   Stamina: ___Good ___Average ___Poor
   Muscle Tone: ___Good ___Average ___Poor

8. ATTITUDE:
   Does trainee understand purpose of P.C.? ___Yes ___No
   Is trainee concerned about Physical Fitness? ___Yes ___No

9. SPORTS INTERESTS:___________________________________
   ____

10. REMARKS:____
   ____
   ____

SHOP

NAME: ____________ AGE: ______ CITY & STATE ____________

Degree of Sight ____________ Stability of sight ____________ Downtown travel ____________

Secondary Disability ____________ Vocational Objective ____________ Education ____________

EVALUATION

This trainees' mobility in the shop area is ____________

____

______ has oriented to the shop ____________

______ attitude on entering the shop was ____________

____

______ expressed that ______ had ____________

EVALUATION PERFORMANCE

____________ had ____________ difficulty finding the tool board and the tools on it.

______ can find and identify the following tools, (Underline)

______ can use the following tools (Circle)

1. Hammer
2. Saw
3. Screwdriver
4. Pliers
5. Scratch awl
6. Square
7. Plane
8. Hand drill
9. Wood Rasp
10. Sidecutters
11. Brail ruler
12. C Clamp
13. Puttyknife
14. Nail set

______ completed the evaluation tasks ____________

____

______ has ______ coordination, ______ finger dexterity and ______ gross dexterity. ______ was given the following sections of the GATB tests ____________

COMPLETION

This trainee should be scheduled in the shop for ____ months. We plan to work toward and improve the following ____________

____

The following tasks should be developmental to ______ ; ______.

____

Areas to work in: ____________

PROJECTED ACCOMPLISHMENTS: ____________

____

CRAFTS

INITIAL EVALUATION

NAME:______________________________ DATE:________________

ADDRESS:____

AGE:__________EDUCATION:______________________________

Has he/she had previous training?........................Yes____No____

Does he/she need this area of training?.................Yes____No____

Can he/she follow verbal instructions?..................Yes____No____

Can he/she weave a Potholder?............................Yes____No____

Can he/she use a pair of scissors?......................Yes____No____

Can he/she lace a billfold?.................................Yes ___No ____

Can he/she assemble a link belt?........................Yes____No____

Does he/she work well with other trainees?..............Yes____No____

Is he/she punctual in schedule?.........................Yes____No____

Is he/she motivated to learn Crafts?....................Yes____No____

Can he/she work independently?..........................Yes____No____

Dexterity...Poor___Good___

Coordination..Poor___Good___

How much time required to be proficient?____________________

Remarks: ____

____

____

____

____

APPENDIX C

SAMPLE SUMMARY REPORT OF STUDENTS' PROGRESS IN COLLEGE PREPARATORY PROGRAM OF ARKANSAS ENTERPRISES FOR THE BLIND

ARKANSAS ENTERPRISES FOR THE BLIND, INC.

REHABILITATION CENTER

CLIENT ____________________ DATE August 9, 1968

SUBJECT College Preparatory Report Terminal BY ____________________

ACADEMIC INSTRUCTION: (Instructor)

In Academic Instruction each student was asked to write seven papers. These papers were on topics ranging from a short autobiographical sketch to an evaluation of the whole College Prep course. The instructional part of the course was based on the errors apparent in the writing. As a result, parts of speech, phrases, clauses, sentence structure, punctuation, case of pronouns, and simple mechanics were studied. The students were given five fifty point tests based on this material.

In addition to the writing and the grammar study, each student was asked to make five oral reports. These topics ranged from explaining a process to reading a passage in literature.

In computing the overall grade, the following formula was used: Theme average 40%, Oral report average 20%, and Tests 40%.

ATTITUDE TOWARD SELF AND OTHERS: (Psychologist-Counselor)

During the first few group and individual counseling sessions this trainee's attitude toward herself and some of the others was somewhat negative. However, as time has gone on and she has progressed with the activities here her attitude has undergone a marked change so that her current status is that of making a very positive contribution in both group and individual counseling sessions. She has initiated a number of individual counseling sessions and has appeared to this counselor to have high motivation toward working through solutions of her personal problems so as to attain her educational and vocational goals. It is the feeling of this counselor that the progress from negative to positive attitude toward both self and others has been quite successful and if such an attitude continues to exist this trainee should encounter very little difficulty in fitting into the college scene both academic and social.

RECREATION: (Instructor)

She participated in a variety of recreational activities including dances, swimming, bowling and the Gavel Club. She sang in a duet at a talent show and attended a play given by a city theatre group. Her manners were gracious and friendly and she was well liked by all ages.

SOCIAL SKILLS: (Instructor)

The initial evaluation indicated that this college prep student's social and recreational activities has been limited to camping, attending movies, ball games and stage plays. She has not been an active participant in any type physical activities and had a limited knowledge of parlor games. She has played Bingo, the card games of Crazy 8's, Battle, and Books. She stated she was interested in learning to play the card game of Bridge. She was not familiar with the terminology of words used in card games; therefore, she was given the definitions of trump, suit and trick. She was then given instructions in how to count honor and distribution points, rank of suits in bidding, honor points needed to open the bidding, which suit is biddable, respond to opening bids and what cards are required to bid no trump. She was very attentive to the instructions, would ask questions as to why certain plays should be made, and would recognize her mistakes when they were made. She is proficient playing the game with very little assistance. She also had instructions in domino games of Moon, and card games of Red Apple and Black Jack. She was cooperative, had a pleasant personality and was well liked by the other trainees in this area.

PHYSICAL CONDITIONING: (Instructor)

The evaluation indicated that this student needed general physical conditioning, bowling instruction, and an opportunity to participate in active games. This individual has been scheduled into this area during the entire college preparation program. She has participated in bowling, shuffleboard, and several mobility drills. Her level of performance has improved over the past several weeks. However, she is not proficient in any of the physical conditioning activities, but her progress has been very satisfactory.

PERSONAL MANAGEMENT: TECHNIQUES OF DAILY LIVING: (Instructor)

Instructions in sewing and clothing repair, ironing, and use of color tags were given this trainee. During the period she began wearing dark glasses which she felt she needed for eye contact. The trainee maintained a neat, attractive appearance and always had a cheerful, cooperative attitude. Although practice is needed in the techniques of sewing it is felt that she should experience little difficulty in meeting the needs of the independent college life.

In the dormitory she had made a bed prior to entering the Center. She has taken care of her clothing. She makes her bed neatly. Her room is neat. She can use the washer and dryer. She follows dormitory policies. She assists other trainees in the area.

HOME MANAGEMENT: (Instructor)

The trainee has been scheduled into daily Home Management. She has made progress using braille recipes and can usually follow through independently. She is a little messy yet in measuring dry ingredients and tends to spill some on the cabinet each time. She has used the small appliances such as: the disposal, electric mixer, and electric skillet. She has been able to follow verbal directions and is always cooperative. At this date, she seems to have the most difficulty with the technique of spreading. This applies to sandwiches or such things as frosting. The instructor feels that she would by able to meet future needs with some additional home experience. This work would probably increase her speed and organization.

ORIENTATION AND MOBILITY: (Instructor)

During the initial interview she stated that she had some Orientation and Mobility training at the Oklahoma School for the Blind, but that this was somewhat limited and that she felt a need for as much of this as she could possibly attain during the time she was here. An evaluation indicated that she had a basic general knowledge of cane techniques and basic skills. Her coordination, stamina, learning ability, and motivation appeared good. She was lacking in an understanding of basic environmental concepts that are essential to effective Orientation and Mobility training and had not developed advanced skills and techniques that would enable her to function in unfamiliar or complex travel situations. She also appeared to be lacking in confidence in her ability to travel independently. Initially, her training consisted of review lessons involving basic pre-cane skills, sensory training and cane techniques. Generally, she developed and refined these skills adequately with the exception of the touch method of cane usage. Although she receives sufficient information from it to travel efficiently in areas she knows well, she tends to touch the cane to hand and attracts some attention by doing do.

She was given instructions pertaining to the techniques of traveling in residential type situations. These included independent street crossings, shoreline type travel, use of compass directions, the use of landmarks, location of objectives and other methods of establishing and maintaining orientation. Her progress in this phase has been slow primarily related to orientation problems that have their etiology in her basic lack of realistic environmental concepts. Nevertheless she has demonstrated the ability to learn and travel known routes independently. She has tended to be somewhat impulsive on her street crossings but has recently improved upon this. She has had 3 lessons in the downtown area relating specifically to the techniques essential to traveling in this area, but has not developed sufficient skill to attempt these routes independently. Techniques taught were modified cane techniques, orientation methods, use of landmarks, use of traffic cues, straight line walking, the location of objectives and related orientation skills. Her progress here has been good primarily because of her previous travel in areas that are familiar. However, she would have difficulty in unfamiliar ones. Additional training in the future is feasible. During the time that she was in training she received 41 lessons and completed 28 of these.

COMMUNICATIVE SKILLS: BRAILLE: (Instructor)

This trainee stated that she was familiar with the Grade Two level of the code and that she had used it throughout her scholastic career. She was proficient with the slate and stylus and with the Perkins Brailler. Initial evaluation exercises were administered to this trainee. Her performance indicated a high level of competence in both reading and writing the code. From dictation she wrote with the slate and stylus at a rate of ten words per minute. She wrote with a Perkins Brailler from dictation at a rate of thirty three words per minute. Her silent reading rate was 147 words per minute. A reading comprehension test was administered to this trainee. Her score, seven correct out of ten questions attempted out of a possible 20, seems to indicate that she will encounter some difficulty in her freshman year of college. The trainee expressed a desire to study Grade Three braille, a system devised for rapid note taking. After the initial evaluation she began a study of the system. She has not completed the Grade Three Instructional Manual, the Braille Code A Guide to Grade Three, by Ruth Hayden. She used Grade Three in her class notes, rough drafts of themes, etc., and has a good knowledge of the code. Her attitude has in general been good, although she showed a somewhat argumentative temperament. She has worked conscientiously in the area and her progress has been rapid and consistent. The instructor feels that she will be able to adequately meet her needs in a college setting by the use of Grade Three braille. No additional time is recommended for study in this area.

TYPING: (Instructor)

This trainee had excellent knowledge of all typing techniques when she entered the Center. She was capable of typing a proficient business letter from the standpoint of sentence structure, grammar and spelling. She was familiar with the mechanical processes for setting margins and tabulations in order to use exact semi-block style letter form and properly addressing envelopes, as well as for centering type written both horizontally and vertically on a page of paper. She typed 40 WPM with no errors on a five minute timed writing dictated on tape. Since she was proficient in the above mentioned typing skills, she was not scheduled in typing. In the opinion of the instructor, this trainee cannot only care for any personal typing she might need to do but should she so desire, she probably could do professional typing if the occasion presents itself.

ALPHA COMMUNICATIVE TECHNIQUES: (Instructor)

The initial evaluation showed thatthis trainee could sign her name in script handwriting, with the aid of the Arkansas string board, although her signature was too large to be considered acceptable. She could dial the phone quickly and knew how to use it under various circumstances. She could tell time quickly on a braille watch and could identify coins and make change quickly and accurately in any amount. She was familiar with the talking book machine and knew how and where to order books. She was not familiar with the operation of the tape recorder. This trainee was able to reduce the size of her signature and learned the operation of the tape recorder within a short time. After acquiring these skills, this trainee remained in the area and was offered this time to use the library, but showed no initiative or interest in using the educational materials in the library. She was re-scheduled into other areas of the program.

MATHEMATICS: (Instructor)

This trainee stated that she did mathematical computation mentally. A test involving twelve mathematical problems was administered to her. This test included the following types of problems: three addition, three subtraction, three multiplication, and three division. Each of these three groups of problems contained one problem dealing with whole numbers, one problem dealing with decimals, and one problem dealing with fractions. She scored eight of these twelve problems correctly. This score was one indication that she lacked a thoroughly complete knowledge of basic arithmetic and that she needed a more definite means of doing mathematical computations. Since she stated that she did not wish to learn to use the Abacus despite her obvious need for it. she was not scheduled into this phase of training.

GROUP THERAPY: (Group Leader)

This trainee has been very active in group therapy sessions, initiating topics for general discussion and making positive contributions to the discussion when other trainees introduced topics. When trainees were asked to participate as group leaders this trainee volunteered for the first of the sessions on July 9. She introduced a timely topic and encouraged the participation of other group members. When the group evaluated each other regarding leadership potential this trainee ranked in third place by her own evaluation and that of the group. It is a feeling of this group leader that she should make a valuable contribution to any group with whom she comes in contact in the future.

WORK PERFORMANCE EVALUATION: SHOP: (Instructor)

She satisfactorily completed the evaluation tasks of wiring a door bell circuit, putting rubber grommets into metal plates and constructing a rubber link doormat. She also put a wood panel covered with felt in her jewelry box and has made a desk set. Her workmanship was fair, attitude and relationship with others was good.

HANDICRAFTS: (Instructor)

She was evaluated on weaving a pot holder and in knitting. She was proficient in these skills and has not been scheduled in this area.

APPENDIX D

ACADEMIC INSTRUCTION SYLLABUS
COLLEGE PREPARATORY PROGRAM OF
ARKANSAS ENTERPRISES FOR THE BLIND

SYLLABUS FOR ACADEMIC INSTRUCTION

SUMMER, 1968

JUNE 10-14
EVALUATION AND ORIENTATION
1. Give spelling test
2. Assing theme 1 (a one-paragraph personal experience written in class)
3. Assign oral theme 1 (a three-to-five minute introductory speech in which the students tell their name, city, state, plans for college,etc)
4. Study the paragraph and ways of getting coherence and unity in the paragraph
5. Assign paper 2 (an autobiography due June 17)

JUNE 17-21
1. Collect autobiography
2. Study mechanics
3. Give test on mechanics
4. Assing paper 3 (character sketch)

JUNE 24-28
1. Collect theme 3
2. Assign oral theme 2 (talk about a hobby)
3. Study punctuation
4. Give test on punctuation
5. Assign paper 4 (a personal narrative)

JULY 1-5
1. Collect paper 4
2. Study grammar
3. July 4 is holiday
4. Give college prep test 1 on Tues., July 2 at 10:30 a.m.
5. Assign paper 5 (the requirements for a degree in a chosen field)

JULY 8-12
1. Collect paper 5
2. Continue study of grammar
3. Give test on grammar
4. Assign talk 3 (a report on a newspaper or magazine article)

JULY 15-19
1. Assign paper 6 (a book report)
2. Study rules for spelling
3. Spelling test
4. Have variety show on Thurs., July 18
5. Study diction

JULY 22-26
1. Collect paper 6
2. Assign oral report 4 (have students read excerpt from novel, etc.)
3. Assign paper 7 (an evaluation of college prep)
4. July 26 is date for college visitation
5. Study subject-verb agreement

JULY 29--AUGUST 2

1. Collect paper 7
2. Study principal parts of verbs, cases of pronouns, use of adjectives and adverbs, etc.
3. Give test on material studied
4. Assign oral report 5 (explain a process)
5. Have college prep test II on Friday, August 2

AUGUST 5-9

1. Study special problems
2. Give students evaluation
3. Have appreciation banquet on Thursday, August 8, at 6 p.m.

TOPICS FOR ORAL REPORTS

ORAL COMMUNICATIONS

Ask students to give five oral reports. These reports should be from three to five minutes in length.

1. An introductory speech telling name, city, state, plans for college, etc.
2. Report on hobbies
3. Report on a magazine article
4. Read an article, poem, excerpt from a book
4. Explain a process (how you do something)

THEMES

1. Personal experience
2. Autobiography
3. Character sketch
4. Personal experience
5. Requirements for a degree
6. Novel critique
7. Evaluation

TESTS

1. Spelling
2. Punctuation
3. Mechanics
4. Spelling
5. Diction
6. Agreement
7. Grammar

VITA

VITA

Clyde Raymond Smith was born in Donaldson, Arkansas, on June 15, 1933. He attended the Arkansas School for the Blind in Little Rock, Arkansas, and completed the tenth grade in 1951. In April, 1954 he entered Arkansas State College, and in June, 1957, he received a Bachelor of Science degree in Sociology. In February, 1957, he entered the University of Missouri, and in June, 1958, he received a Master of Education degree in Vocational Rehabilitation Counseling and Guidance. From June, 1958, to June, 1960, he was employed by the Missouri Bureau for the Blind, in Kansas City as a Vocational Rehabilitation Counselor and Employment Placement Agent. From July, 1960, to June, 1967, he was a counselor at the Presbyterian Guidance Center on the campus of Southwestern-at-Memphis College in Memphis, Tennessee.

He entered the Graduate School at The University of Tennessee in June, 1967, and received the Doctor of Education degree with a major in Educational Psychology and Guidance in December, 1969. He has been employed at the College of Education at Bradley University in Peoria, Illinois since September, 1969. He is a member of the American Psychological Association and the American Personnel and Guidance Association.

He is married to the former Jannis Yvonne Lowery of Malvern, Arkansas. They have one daughter, Renee.